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ABSTRACT

Nine of the 11 elementary schools had supportive programs funded under Title I of the 1965 Elementary Secondary Education. Title I programs typically entailed the employment of additional teachers and paraprofessional school personnel. One school participated in the Education Professions Development Act project, a cooperative effort between the Atlanta Public School System and Atlanta University. One school employed two college students to work with teachers of the second and third grades to provide reading activities for educationally deprived pupils; this was funded as a part of Project Concern. Ten schools participated in the Comprehensive Instructional Program, a locally funded program focusing on the area of reading in grades one through three and on math in grades four through six. Two schools participated in the Emergency School Assistance Program, which focused on the improvement of educational opportunities in mathematics in the lower one-third in achievement and in improving community relationship. One school participated in the Instructional Assistance Program. Seven schools participated in the Career Opportunities Program, a training program for selected paraprofessionals. Six schools participated in the Model Cities Educational Component. One school participated in the Teacher Corps program. (JM)

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[PUPIL PERFORMANCE IN ELEMENTARY SCHOOLS OF ATLANTA, GA.]

# RESEARCH AND DEVELOPMENT REPORT

Vol. VI, No. 20 November, 1972

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# I. RATIONALE

Jeremiah S. Gilbert serves a pupil population of kindergarten through seventh grade. A large percentage (60.4 per cent) of these pupils are from families with incomes of $3,000 or less per year. Reading below actual grade level and low academic achievement are prevalent problems in this school. Federal funds are utilized to provide compensatory education to assist in solving these problems.

As is true in all schools receiving compensatory funds, a study is made each year to determine the effectiveness of the school program in utilizing these funds to improve pupil progress. The results of the FY'71 study, which compared two approaches for teaching reading, indicated that pupils made greater progress using Sullivan programmed reading materials then did those who were taught using the basal method. Consequently, in FY'72, Sullivan programmed reading materials were used with all classes in grades one through three.

The study for FY'72 followed through on the longitudinal study which was begun in FY'71 of the reading program and added a new dimension -- a study of the mathematics program. Further, the performance of pupils who received tutorial services also was analyzed to determine the effects of these services. The purpose of this report is to present the findings of the study conducted in FY'72.

## Supporting Projects

### Comprehensive Instructional Program

The Comprehensive Instructional Program (CIP) was initiated in 1971 to upgrade reading instruction in grades one through three. This year it spiraled to include upgrading mathematical instruction in grades four through seven. Each elementary school was responsible for developing its own plan for meeting the needs of its pupils in each of the two subject areas. CIP directed a systematic diagnostic testing program and inservice training which was designed to enable teachers to do prescriptive teaching in reading (grades one through three) and math (grades four through seven).

### Elementary and Secondary Education Act (ESEA) Title I

Because a large percentage of the pupil population was from families of low income, Gilbert qualified for the following compensatory services provided under Title I:

A. Lead Teacher -- The lead teacher coordinated the instructional program specifically as it related to educationally deprived pupils. The duties of the lead teacher included monitoring teaching, making suggestions of possible teaching strategies, keeping abreast of requests of teachers, ordering supplies, and coordinating inservice programs directed toward meeting the needs of pupils who had the greatest educational needs.

B. Educational Aides -- Based on the enrollment, five educational aides were assigned to Gilbert. Of the five aides, three were assigned to the kindergarten classes; the others were shared among grades one through seven.

C. Social Worker -- The social worker provided services related to reducing pupil problems arising from health, personal and social adjustment, and problems which affected achievement.

D. Youth-Tutoring-Youth (YTY) -- Ten high school pupils, five under Title I and five under Neighborhood Youth Corps, provided tutorial activities in the form of reading and mathematics games for one hour each day following the regular school day. The local program was coordinated by one of the Title I educational aides.

### Career Opportunities Program

Career Opportunities Program (COP) is a training program for educational auxiliaries. Its contribution to the school program was in the form of training for the other projects' paraprofessional personnel. Through COP, the trainees were enrolled in accredited college courses while serving as aides in the school and followed a planned program of study leading toward professional certification. Three of the Title I aides at Gilbert were COP trainees.

### Emergency School Assistance Program

The major thrust of this program was toward improving educational opportunities in mathematics for pupils in the lower one-third in achievement and in improving community relationship.

## II. NEEDS OF THE PUPILS

Based upon teacher observations and records of the school, the following were identified as needs of the pupils to which attention would be given:

A. To improve self-concept.

B. To improve basic skills in reading and mathematics.

C. To improve attendance.

## III. GOALS OF THE PROGRAM

In order to meet the needs of the pupils, the following goals were set forth:

A. To provide activities geared to the reading levels of the pupils so that they could experience success in completing the tasks assigned.

B. To provide for each pupil systematic and sequential instructional activities in reading (grades one through three) and mathematics (grades four through seven), based on periodic diagnostic testing.

C. To provide opportunities for parents to become involved in the school activities provided for their children, thereby improving school-community relationships.

D. To provide activities to complement the regular school educational activities of pupils having the greatest needs, and to improve their self-image, achievement, and desire to attend school.

## IV. BEHAVIORAL OBJECTIVES

The following objectives served as the basis for evaluating program activities and pupil progress:

A. Pupils in grades one through three will show an annual increase in self-concept significant at the .05 level.

B. The same percentage of first graders who scored "C" or above on the Metropolitan Readiness Tests (MRT) would score 1.6 or above on the Metropolitan Achievement Tests (MAT). Pupils in grades five through seven will show a one month gain for each month in the program as measured by the MAT.

C. The percentage of attendance in each grade will increase two percentage points above each grade's per cent of attendance for 1970-71.

D. The pupils taught by Career Opportunities Program (COP) teams will show significantly greater annual gains in reading then similar pupils not taught by COP teams.

E. The pupils taught by COP teams will make an annual academic gain in reading of one year.

F. Pupils taught by COP teams will show a more significant gain in self-concept then will similar pupils taught in self-contained classrooms.

G. As a COP school, Gilbert will have a more open climate than will schools that do not have COP teams.

### Critical Variables

A. Reading skills (grade one through three)

B. Mathematics skills (grades five through seven)

C. Attendance

D. Self-Concept

E. Openness of climate.

## V. MANAGEMENT AND CONTROL

The enrollment at Gilbert included pupils in grades kindergarten through seven. Based on the enrollment, the faculty included sixteen teachers assigned to grades kindergarten through seven; two special education teachers; one librarian; one part-time social worker; part-time teachers in speech, music, and art; six educational aides; the principal; and one lead teacher.

The principal directed the total school program, specifically attending to administrative aspects of the operation.

The lead teacher primarily was responsible for assisting teachers with instructional activities and provided inservice training for teachers, giving specific attention to improving educational opportunities for the educationally deprived pupils.

The teachers were responsible for implementation of the instructional program. They administered diagnostic tests to determine the strength and weaknesses of pupils prescribed in instruction according to the needs of the pupils; evaluated pupil progress; and kept parents informed of pupil progress through conferences, telephone calls, written reports, and home visits.

Area resource personnel were available upon request. They conducted workshops; made recommendations; and called attention to innovations in educational materials, equipment, teaching strategies and techniques.

## VI. PROCESS

The following activities were directed toward meeting the goals of the program, thus fulfilling the needs of the pupils.

The lower grades (one through four) participated in a special reading program utilizing the Sullivan programmed reading materials published by Behavioral Research Laboratories. This individualized reading approach incorporated linguistic principles. The pupils using programmed texts were presented information in small, easy-to-follow steps or games. The information was arranged in a logical sequence which gradually increased in difficulty as the text progressed. At every step the student wrote his answer to the specific question at hand and then checked the accuracy of his answer with the correct answer provided in the text. The pupils actively participated in the learning process and were continually informed of the results of their work. This program provided the pupils with programmed readers as well as story books, enrichment materials, tests and response booklets. In addition to the programmed activities, many varied and innovative teaching strategies were employed to motivate the learner and improve learning activities.

The Houghton-Mifflin Basal Reader series was used in grades five through seven and was supplemented by the Reader's Digest Skill Builders high interest local vocabulary book and the Science Research Associates (SRA) Laboratories.

Basically, reading was taught for one hour daily in grades one through three and for forty-five minutes daily in grades four through seven. Within each grade, pupils were grouped homogeneously into classes. During the reading period, the educational aide assisted with instructional tasks. The reading periods were scheduled so that an aide was assigned at that time to each class. The educational aides engaged in such activities as reading stories to pupils, listening to pupils read, directing reading games, and small group activities, particularly for the most educationally deprived.

A group of volunteer parents assisted pupils in performing activities that had been initiated by the teachers. They conducted small group activities, supervised free play activities on the playground, and made reading and arithmetic games.

Prior to the parents' involvement in classroom activities, they attended a workshop conducted by the lead teacher. Initially, twelve parents were involved. Some worked from 9 a.m. to 12 noon and others from 12 noon to 3 p.m.

The American Book Company Mathematics series, supplemented with the SRA Laboratories, was used in grades five through seven for math instruction.

The librarian cooperated with the teachers in carrying out the teaching objectives of the school by integrating all the learning resources of the school. Assistance was given to teachers in setting up library learning centers within the classroom.

For the primary grades, the librarian incorporated into the reading program the teaching of good library citizenship, the care of books, opportunities for enjoyment of literature through reading aloud and sharing books, location and shelving of books, and the teaching of call numbers.

In the upper grades, the librarian incorporated into the reading program the development of primary skills, the extension of knowledge of the library to include the teaching of library vocabulary, the parts of books, the classification system, the use of the card system, the use of the card catalogue, and the use of all types of reference materials.

## VII. EVALUATION

### Research Design

The general design used to study the program was one which determined the beginning and ending academic levels of the pupils and denoted changes which occurred. The following procedures were followed to obtain data necessary for evaluative purposes:

A. The yearly percentage of attendance for each grade was obtained from the attendance record for FY'71 and FY'72 and was compared to denote changes in the rate of attendance by grade.

B. Data collected by administering the Self-Appraisal Inventory (SAI) and the School Sentiment Index (SSI) to a sample of pupils in grades one through three were used to obtain a beginning index of pupil self-concept and attitude toward schools.

C. Data collected by the Metropolitan Achievement Tests (MAT) through the city-wide testing program were utilized to assess academic gains in reading and mathematics. The reading gains of pupils who participated in the Youth-Tutoring-Youth (Y-T-Y) activity were compared to the reading gains of other pupils in the same grades who were not participants in the Y-T-Y activity. Further, in order to determine the longitudinal progress in reading, gain scores over a two-year period were compared for those pupils who took pretest and posttest in 1970-71 and 1971-72 ($S_4$ population). MAT reading and mathematics scores also were used to determine the gain rate of effectiveness in reading (over a two-year period) and in mathematics (over a one-year period). For the purposes of the Career Opportunities Program (COP), pupil performance will be compared to other schools without COP teams in a separate document.

D. The Organizational Climate Index (OCI) was administered to a randomly selected sample of teachers and the data were compared to the 1970-71 results to denote changes in the openness of the school climate.

### Findings

#### Academic Achievement in Reading

The data showing the performance of first grade pupils on the Metropolitan Readiness Tests (MRT) and the reading subtest of the Metropolitan Achievement Tests (MAT) are presented in Table 1.

According to these data, twenty pupils scored "C" or above; twenty-four pupils scored "D" or below. Of the twenty pupils who scored "C" or above, indicating readiness for first grade work, only 30 per cent scored 1.6 or above on the MAT. Of the pupils who scored "D" or below, indicating that they were not prepared for first grade work, 29 per cent scored 1.6 or above on the MAT. In other words, the two groups, despite their beginning scores, performed basically the same on the posttest.

### TABLE 1

### SUMMARY OF PUPIL PERFORMANCE ON THE METROPOLITAN READINESS TESTS AND THE METROPOLITAN ACHIEVEMENT TESTS READING SCORES

FIRST GRADE
N = 44

| | | MAT Scores | | | |
|---|---|---|---|---|---|
| | | 1.6 or above | | 1.0 - 1.5 | |
| MRT Scores Group | Number ($S_3$ Population) | No. | Per Cent | No. | Per Cent |
| C or above | 20 | 6 | 30.0 | 14 | 70.0 |
| D or below | 24 | 7 | 29.2 | 17 | 70.8 |
| Total | 44 | 13 | 29.5 | 31 | 70.5 |

The distribution of scores on both tests is presented in Table 2. These data further substantiated the fact that the pupils who, according to their pretest scores, were expected to succeed in first grade work performed similarly to those pupils whose pretest scores indicated that they were likely to have difficulty with first grade work.

Presented in Table 3 are data concerning grades two, three, five, six, and seven. The fourth grade took the MAT as a posttest only. Consequently, the fourth grade was excluded from the table which shows gain score data over the six-month testing period. The data presented in Table 3 show, for each grade reported, the number of pupils who took both pretest and posttest ($S_3$ population), the mean reading pretest and posttest scores, mean reading gain, per cent of expected gain obtained, gain score t test, per cent of attendance for the $S_3$ population, and coefficients of correlation between reading gains and attendance.

## TABLE 2

## DISTRIBUTION OF LETTER RATING AND READINESS STATUS CORRESPONDING TO VARIOUS RANGES OF TOTAL SCORES ON THE METROPOLITAN READINESS TESTS AND THE METROPOLITAN ACHIEVEMENT TESTS READING SCORES FIRST GRADE

1971-72 -- N = 44

| MRT | | | | | MAT | |
|---|---|---|---|---|---|---|
| No. | Score Range | Letter Rating | Readiness Status | Significance | 1.6 or above | 1.0 - 1.5 |
| 0 | Above 75 | A | Superior | Apparently very well prepared for first grade work. Should be given opportunity for enriched work in line with abilities. | 0 | 0 |
| 10 | 64-75 | B | High Normal | Good prospects for success in first grade work provided other indications such as health, emotional factors, etc., are consistent. | 2 | 8 |
| 10 | 45-63 | C | Average | Likely to succeed in first grade work. Careful study should be made of the specific strengths and weaknesses of pupils in this group and their instruction planned accordingly. | 4 | 6 |
| 15 | 24-44 | D | Low Normal | Likely to have difficulty in first grade work. Should be assigned to slow section and given more individualized help. | 4 | 11 |
| 9 | Below 24 | E | Low | Chances of difficulty high under ordinary instructional conditions. Further readiness work, assignment to slow sections, or individualized work is essential. | 3 | 6 |
| 44 | Total | | | | 13 | 31 |

According to these data, none of the grades realized the objective (six months gain in reading between pretest and posttest). However, the gain in each grade was statistically significant. Further concerning these data, correlation was computed between the reading gains and attendance for each of the $S_3$ populations. There was no significant correlation between these two variables; therefore, according to these data, attendance did not influence the reading performance of the $S_3$ groups.

### TABLE 3

### COMPARISON OF THE METROPOLITAN ACHIEVEMENT TESTS MEAN READING SCORES, GAIN, PER CENT OF EXPECTED GAIN, GAIN SCORE t-TEST, PER CENT OF ATTENDANCE, AND COEFFICIENT OF CORRELATION BETWEEN ATTENDANCE AND READING FOR GRADES 2, 3, 5, 6, AND 7 ($S_3$ POPULATION)

| Grade | Number of Pupils | Mean Score Pre | Mean Score Post | Gain | Per Cent of Expected Gain | t Test | Per Cent of Attendance | r |
|---|---|---|---|---|---|---|---|---|
| 2 | 60 | 1.3 | 1.8 | 0.5 | 78.5 | 7.07** | 93.9 | 0.04 |
| 3 | 42 | 2.1 | 2.3 | 0.2 | 37.6 | 2.89** | 92.7 | 0.28 |
| 5 | 37 | 3.5 | 3.8 | 0.3 | 54.5 | 2.12* | 96.3 | 0.10 |
| 6 | 34 | 3.7 | 4.0 | 0.3 | 43.2 | 2.03* | 94.6 | 0.01 |
| 7 | 28 | 4.2 | 4.5 | 0.3 | 50.7 | 2.32* | 93.0 | 0.06 |

*Significant at the .05 level.
**Significant at the .01 level.

A longitudinal profile of the reading performance of pupils in the grades for which these data were available is shown in Table 4. The reading scores for pupils who took both the pretest and posttest during the two-year period of 1970-71 and 1971-72 ($S_4$ population) are shown. No gain is shown for the first grade in that the MRTwas used as a pretest and the MRT does not yield a grade equivalent score. The longitudinal performance of the FY'72 fourth grade was excluded because the fourth grade did not take the MAT as the pretest in FY'72. Consequently, matched scores for $S_4$ pupils in grades two, three, five, six, and seven are presented to show whether their reading gains for FY'72 were less, greater, or about the same in FY'71.

# TABLE 4

## LONGITUDINAL PROFILE OF THE READING PERFORMANCE OF PUPILS WHO TOOK BOTH THE PRETEST AND THE POSTTEST IN 1970-71 AND IN 1971-72

### GRADES 1 -- 7

| | 1970-71 | | | | 1971-72 | | | |
|---|---|---|---|---|---|---|---|---|
| Number | Grade | Pre | Post | Gain | Grade | Pre | Post | Gain |
| 29 | 1 | D | 1.5 | --- | 2 | 1.3 | 1.8 | 0.5 |
| 31 | 2 | 1.2 | 1.7 | 0.5 | 3 | 2.2 | 2.3 | 0.1 |
| 28 | 4 | 2.8 | 3.9 | 1.1 | 5 | 3.6 | 4.0 | 0.4 |
| 23 | 5 | 3.4 | 3.8 | 0.4 | 6 | 3.7 | 4.1 | 0.4 |
| 20 | 6 | 4.0 | 4.0 | 0.0 | 7 | 4.5 | 4.8 | 0.3 |

The second grade pupils seemingly held their own as far as gains are concerned; however, there was a loss of 0.2 months between posttest in the spring and pretest in the fall (between their scores in the first grade and their scores in the second grade).

Pupil performance in grades three and five should raise concern. The third grade pupils performed better by four months in the second grade then they did in the third. The fifth grade pupils performed better by seven months in the fourth grade then they did in the fifth. In that these data represent the performance of the same group of pupils over a two-year period, the following question seemed warranted: were the factors which contributed to the decrease in the instructional program testing procedures, or were they pupil related?

The performance of the sixth grade pupils was constant. The reading gain was the same for each year. The seventh grade pupils performed better by three months in the seventh grade then they did the previous year in the sixth grade.

In summary, these data indicate that over a two-year period the progress of pupils was not substantially enough to raise their low reading level. The ending reading levels were far below the actual grade placement levels. Consequently, the rate of progress shown here is far too low to bridge the gap between the placement levels and the reading levels. Also, the fluctuation of performance by the same pupils over a two-year period needs to be studied very thoroughly in order to prevent such inconsistency in performance.

Specific pupils were not identified for Title I services until after the posttest was administered. Consequently, the effects of the program were not measured.

There were approximately 22 pupils involved as tutees in the Youth-Tutoring-Youth (YTY) activity in Gilbert. These pupils were in grades three, five, six, and seven. Matched scores were available for 13 of these pupils (four third graders, two fifth graders, five sixth graders, and two seventh graders). These pupils were identified, according to MAT data and teacher observation, as pupils having limited basic reading skills and needing additional help beyond the regular classroom experiences.

Using analysis of covariance, comparison was made between the performance of the tutored and non-tutored pupils on each of the MAT subtests related to overall reading performance (word knowledge, word analysis, reading, and reading total). The pretest scores were used as the covariant. According to the F-test there was no statistically significant difference between the performance of the two groups on any of the subtests. In that the beginning difference between the two groups was adjusted and the two groups made similar gains, the data seemingly indicated that tutoring did not affect the performance of the two groups. These data are presented in Table 5 (third grade), Table 6 (fifth grade), Table 7 (sixth grade), and Table 8 (seventh grade).

Members of the Division of Research and Development conducted a study of the effectiveness and acceptability of the reading program 1970-71 and the reading and arithmetic programs in 1971-72 in each elementary school in the Atlanta School System. The findings of this study were presented in a separate document entitled "Effective? Acceptable?" The summary data concerning Gilbert were taken from that report and are presented in Table 9 (Reading Program) and Table 10 (Arithmetic Program).

These data show the actual and predicted gains, the gain rate of effectiveness, and the level of acceptability over a two-year period in reading and a one-year period in arithmetic. The predictions were made on the basis of six factors, namely: percentage of attendance, stability, percentage of paid lunches, teacher-pupil ratio, pretest scores on the MAT, and the percentage of pupils passing. The gain rate of effectiveness was determined by the extent to which the pupils obtained the predicted gain.

## TABLE 4

## LONGITUDINAL PROFILE OF THE READING PERFORMANCE OF PUPILS WHO TOOK BOTH THE PRETEST AND THE POSTTEST IN 1970-71 AND IN 1971-72
GRADES 1 -- 7

| | 1970-71 | | | | 1971-72 | | | |
|---|---|---|---|---|---|---|---|---|
| Number | Grade | Pre | Post | Gain | Grade | Pre | Post | Gain |
| 29 | 1 | D | 1.5 | --- | 2 | 1.3 | 1.8 | 0.5 |
| 31 | 2 | 1.2 | 1.7 | 0.5 | 3 | 2.2 | 2.3 | 0.1 |
| 28 | 4 | 2.8 | 3.9 | 1.1 | 5 | 3.6 | 4.0 | 0.4 |
| 23 | 5 | 3.4 | 3.8 | 0.4 | 6 | 3.7 | 4.1 | 0.4 |
| 20 | 6 | 4.0 | 4.0 | 0.0 | 7 | 4.5 | 4.8 | 0.3 |

The second grade pupils seemingly held their own as far as gains are concerned; however, there was a loss of 0.2 months between posttest in the spring and pretest in the fall (between their scores in the first grade and their scores in the second grade).

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In summary, these data indicate that over a two-year period the progress of pupils was not substantially enough to raise their low reading level. The ending reading levels were far below the actual grade placement levels. Consequently, the rate of progress shown here is far too low to bridge the gap between the placement levels and the reading levels. Also, the fluctuation of performance by the same pupils over a two-year period needs to be studied very thoroughly in order to prevent such inconsistency in performance.

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Using analysis of covariance, comparison was made between the performance of the tutored and non-tutored pupils on each of the MAT subtests related to overall reading performance (word knowledge, word analysis, reading, and reading total). The pretest scores were used as the covariant. According to the F-test there was no statistically significant difference between the performance of the two groups on any of the subtests. In that the beginning difference between the two groups was adjusted and the two groups made similar gains, the data seemingly indicated that tutoring did not affect the performance of the two groups. These data are presented in Table 5 (third grade), Table 6 (fifth grade), Table 7 (sixth grade), and Table 8 (seventh grade).

Members of the Division of Research and Development conducted a study of the effectiveness and acceptability of the reading program 1970-71 and the reading and arithmetic programs in 1971-72 in each elementary school in the Atlanta School System. The findings of this study were presented in a separate document entitled "Effective? Acceptable?" The summary data concerning Gilbert were taken from that report and are presented in Table 9 (Reading Program) and Table 10 (Arithmetic Program).

These data show the actual and predicted gains, the gain rate of effectiveness, and the level of acceptability over a two-year period in reading and a one-year period in arithmetic. The predictions were made on the basis of six factors, namely: percentage of attendance, stability, percentage of paid lunches, teacher-pupil ratio, pretest scores on the MAT, and the percentage of pupils passing. The gain rate of effectiveness was determined by the extent to which the pupils obtained the predicted gain.

The gain rate of effectiveness differs from the per cent of expected gain reported in Table 3 for the following reasons:

1. Gain rate of effectiveness is the ratio of actual gain to predicted gain. Per cent of expected gain is the ratio of actual gain to expected gain (one month for each month of instruction).
2. The effectiveness-acceptability data were obtained from unmatched median scores on the MAT and the data in Table 3 were obtained from matched mean scores on the MAT.

According to the data in Table 9, the over-all reading performance of the pupils was effective but not acceptable. Specifically, the second grade performed as predicted; the fourth, sixth, and seventh grades performed much higher than was predicted; and only the third and fifth grades performed lower than the prediction. However, the pupils obtained only about three-fifths of the national norm (acceptable level). Thus, the relatively high performance in the fourth, sixth, and seventh grades offset the relatively very low performance in the third and fifth grades.

During the two-year period, the second grade maintained the same gain rate of effectiveness; the fourth, sixth, and seventh grades increased the gain rate of effectiveness; and only the third and fifth grades showed decreases in gain rate of effectiveness. However, very little increase was reflected in the level of acceptability.

According to the data presented in Table 10, the pupil performance in arithmetic also was effective but not acceptable. Only one grade performed lower than the prediction. All other grades attained or surpassed the levels predicted. The pupil performance was not acceptable because they obtained only about four-fifths of the national norm (acceptable level). This pattern of inconsistent performance among the grades was noted in the earlier discussion concerning longitudinal progress.

In summary, the over-all performance of pupils in both reading and math was effective in that in most grades the pupils achieved or exceeded the predicted level. However, the predictions were low (less than one month for each month of instruction) and, in most instances, even though the pupils performed at or above the predicted level, there remains much disparity between the level of performance and the acceptable level. Consequently, very high levels of effectiveness must be attained and maintained for several years in order to reach the acceptable level.

The educational aides who were COP participants worked with all grades in reading thus eliminating grades in the school without the effects of COP to be used for comparison. Consequently, Gilbert will be used as a COP school and pupil performance will be compared to pupil progress in other similar schools without COP participants in the COP evaluation report.

## TABLE 5

## COMPARISON OF MEAN READING SUBTEST SCORES (PRE AND POST) ON THE METROPOLITAN ACHIEVEMENT TESTS FOR THIRD GRADE TUTORED AND NON-TUTORED PUPILS

Word Knowledge

| | Treatment | Error | Total |
|---|---|---|---|
| Sum of Squares: X (Pretest) | 0.01 | 7.57 | 7.58 |
| Sum of Squares: Y (Gain) | 0.02 | 12.14 | 12.16 |
| Sum of Products | -0.01 | - 2.64 | - 2.66 |
| Degrees of Freedom | 1.00 | 42.00 | 43.00 |
| Adjusted Sum of Squares: Y | 0.01 | 11.22 | 11.23 |
| Degrees of Freedom for Adjusted Sum of Squares | 1.00 | 41.00 | 42.00 |
| Variance Estimates | | 0.27 | |

F = 0.04

Adjusted Mean of $Y_1$* = 0.21 Adjusted Mean of $Y_2$** = 0.27

Word Analysis

| | Treatment | Error | Total |
|---|---|---|---|
| Sum of Squares: X (Pretest) | 0.01 | 10.13 | 10.14 |
| Sum of Squares: Y (Gain) | 0.00 | 9.35 | 9.35 |
| Sum of Products | 0.00 | 1.54 | 1.54 |
| Degrees of Freedom | 1.00 | 40.00 | 41.00 |
| Adjusted Sum of Squares: Y | 0.00 | 9.11 | 9.11 |
| Degrees of Freedom for Adjusted Sum of Squares | 1.00 | 39.00 | 40.00 |
| Variance Estimates | 0.00 | 0.23 | |

F = 0.00

Adjusted Mean of $Y_1$* = 0.56 Adjusted Mean of $Y_2$ ** = 0.55

Reading

| | Treatment | Error | Total |
|---|---|---|---|
| Sum of Squares: X (Pretest) | 0.17 | 5.66 | 5.83 |
| Sum of Squares: Y (Gain) | 0.17 | 11.36 | 11.53 |
| Sum of Products | -0.17 | - 2.78 | - 2.95 |
| Degrees of Freedom | 1.00 | 41.00 | 42.00 |
| Adjusted Sum of Squares: Y | 0.04 | 9.99 | 10.04 |
| Degrees of Freedom for Adjusted Sum of Squares | 1.00 | 40.00 | 41.00 |
| Variance Estimates | 0.04 | 0.25 | |

F = 0.17

Adjusted Mean of $Y_1$* = 0.12 Adjusted Mean of $Y_2$** = 0.23

Total Reading

| | Treatment | Error | Total |
|---|---|---|---|
| Sum of Squares: X (Pretest) | 0.06 | 5.30 | 5.36 |
| Sum of Squares: Y (Gain) | 0.04 | 8.28 | 8.32 |
| Sum of Products | -0.04 | - 1.61 | - 1.65 |
| Degrees of Freedom | 1.00 | 41.00 | 42.00 |
| Adjusted Sum of Squares: Y | 0.01 | 7.79 | 7.81 |
| Degrees of Freedom for Adjusted Sum of Squares | 1.00 | 40.00 | 41.00 |
| Variance Estimates | 0.01 | 0.19 | |

F = 0.07

Adjusted Mean of $Y_1$* = 0.21 Adjusted Mean of $Y_2$** = 0.27

*$Y_1$ = Tutored **$Y_2$ = Non-tutored.

## TABLE 6

## COMPARISON OF MEAN READING SUBTESTS SCORES (PRE AND POST) ON THE METROPOLITAN ACHIEVEMENT TESTS FOR FIFTH GRADE TUTORED AND NON-TUTORED PUPILS

| | Treatment | Error | Total |
|---|---|---|---|
| **Word Knowledge** | | | |
| Sum of Squares: X (Pretest) | 0.14 | 25.77 | 25.91 |
| Sum of Squares: Y (Gain) | 0.01 | 18.67 | 18.67 |
| Sum of Products | -0.03 | - 3.56 | - 3.59 |
| Degrees of Freedom | 1.00 | 35.00 | 36.00 |
| Adjusted Sum of Squares: Y | 0.00 | 18.17 | 18.17 |
| Degrees of Freedom for Adjusted Sum of Squares | 1.00 | 34.00 | 35.00 |
| Variance Estimates | 0.00 | 0.53 | |
| $F = 0.00$ | | | |
| Adjusted Mean of $Y_1$* = 0.56 | Adjusted Mean of $Y_2$** = 0.54 | | |
| **Reading** | | | |
| Sum of Squares: X (Pretest) | 0.70 | 17.69 | 18.39 |
| Sum of Squares: Y (Gain) | 2.98 | 30.98 | 33.97 |
| Sum of Products | -1.45 | - 3.84 | - 5.28 |
| Degrees of Freedom | 1.00 | 35.00 | 36.00 |
| Adjusted Sum of Squares: Y | 2.30 | 30.15 | 36.00 |
| Degrees of Freedom for Adjusted Sum of Squares | 1.00 | 34.00 | 35.00 |
| Variance Estimates | 2.30 | 0.89 | |
| $F = 2.59$ | | | |
| Adjusted Mean of $Y_1$* = -0.73 | Adjusted Mean of $Y_2$** = 0.40 | | |

*$Y_1$ = Tutored.

**$Y_2$ = Non-tutored.

## TABLE 7

## COMPARISON OF MEAN READING SUBTESTS SCORES (PRE AND POST) ON THE METROPOLITAN ACHIEVEMENT TESTS FOR SIXTH GRADE TUTORED AND NON-TUTORED PUPILS

| | Treatment | Error | Total |
|---|---|---|---|
| **Word Knowledge** | | | |
| Sum of Squares: X (Pretest) | 0.49 | 7.58 | 8.07 |
| Sum of Squares: Y (Gain) | 0.06 | 57.11 | 57.17 |
| Sum of Products | 0.16 | 6.21 | 6.37 |
| Degrees of Freedom | 1.00 | 32.00 | 33.00 |
| Adjusted Sum of Squares: Y | 0.11 | 52.03 | 52.14 |
| Degrees of Freedom for Adjusted Sum of Squares | 1.00 | 31.00 | 32.00 |
| Variance Estimates | 0.11 | 1.68 | |
| F = 0.06 | | | |
| Adjusted Mean of $Y_1$* = 1.14 | Adjusted Mean of $Y_2$** = 0.97 | | |
| **Reading** | | | |
| Sum of Squares: X (Pretest) | 0.08 | 14.12 | 14.20 |
| Sum of Squares: Y (Gain) | 0.36 | 19.23 | 19.59 |
| Sum of Products | -0.17 | -0.39 | -0.55 |
| Degrees of Freedom | 1.00 | 32.00 | 33.00 |
| Adjusted Sum of Squares: Y | 0.35 | 19.22 | 19.57 |
| Degrees of Freedom for Adjusted Sum of Squares | 1.00 | 31.00 | 32.00 |
| Variance Estimates | 0.35 | 0.62 | |
| F = 0.56 | | | |
| Adjusted Mean of $Y_1$* = 0.02 | Adjusted Mean $Y_2$** = 0.31 | | |

*$Y_1$ = Tutored.

**$Y_2$ = Non-tutored.

## TABLE 8

## COMPARISON OF MEAN READING SUBTESTS SCORES (PRE AND POST) ON THE METROPOLITAN ACHIEVEMENT TESTS FOR SEVENTH GRADE TUTORED AND NON-TUTORED PUPILS

| | Treatment | Error | Total |
|---|---|---|---|
| **Word Knowledge** | | | |
| Sum of Squares: X (Pretest) | 2.02 | 19.96 | 21.98 |
| Sum of Squares: Y (Gain) | 0.96 | 34.76 | 35.72 |
| Sum of Products | 1.39 | 1.79 | 3.18 |
| Degrees of Freedom | 1.00 | 26.00 | 27.00 |
| Adjusted Sum of Squares: Y | 0.66 | 34.60 | 35.26 |
| Degrees of Freedom for Adjusted Sum of Squares | 1.00 | 25.00 | 26.00 |
| Variance Estimates | 0.66 | 1.38 | |
| F = 0.48 | | | |
| Adjusted Mean of $Y_1$* = 0.14 | Adjusted Mean of $Y_2$** = 0.76 | | |
| **Reading** | | | |
| Sum of Squares: Y (Pretest) | 1.09 | 31.94 | 33.03 |
| Sum of Squares: Y (Gain) | 0.46 | 13.47 | 13.93 |
| Sum of Products | 0.71 | - 7.14 | 6.43 |
| Degrees of Freedom | 1.00 | 26.00 | 27.00 |
| Adjusted Sum of Squares: Y | 0.81 | 11.87 | 12.68 |
| Degrees of Freedom for Adjusted Sum of Squares | 1.00 | 25.00 | 26.00 |
| Variance Estimates | 0.81 | 0.47 | |
| F = 1.70 | | | |
| Adjusted Mean of $Y_1$* = -0.31 | Adjusted Mean of $Y_2$** = 0.36 | | |

*$Y_1$ = Tutored,

**$Y_2$ = Non-tutored.

## TABLE 9

## LONGITUDINAL PROFILE OF EFFECTIVENESS AND ACCEPTABILITY OF THE READING PROGRAM 1971-72 AND 1970-71

| Grade | Gain | | Gain Rate of Effectiveness | | Index of Acceptability | |
|---|---|---|---|---|---|---|
| | Actual | Predicted | 1971-72 | 1970-71 | 1971-72 | 1970-71 |
| 2 | 0.3 | 0.3 | 100 | 100 | 59 | 63 |
| 3 | 0.2 | 0.3 | 67 | 120 | 62 | 54 |
| 4 | 1.9 | 0.8 | 237 | 225 | 77 | 74 |
| 5 | 0.2 | 0.5 | 40 | 100 | 60 | 60 |
| 6 | 0.5 | 0.2 | 250 | - 50 | 61 | 54 |
| 7 | 0.7 | 0.2 | 350 | - 67 | 60 | 53 |
| | | Average | 174 | 71 | 63 | 60 |

Note: The interval between pretest and posttest was from October, 1971, to April, 1972, for all grades except the fourth. The interval for the fourth grade was from April, 1971, to April, 1972.

## TABLE 10

## PROFILE OF EFFECTIVENESS AND ACCEPTABILITY OF THE ARITHMETIC PROGRAM 1971-72

| Grade | Gain | | Gain Rate of Effectiveness | Index of Acceptability |
|---|---|---|---|---|
| | Actual | Predicted | | |
| 2 | 0.8 | 0.4 | 200 | 78 |
| 3 | 0.1 | 0.4 | 25 | 65 |
| 4 | 1.6 | 1.0 | 160 | 89 |
| 5 | 0.3 | 0.3 | 100 | 84 |
| 6 | 0.4 | 0.2 | 200 | 75 |
| 7 | 0.3 | 0.3 | 100 | 75 |
| | | Average | 131 | 78 |

Note: The interval between pretest and posttest was from October, 1971, to April, 1972, for all grades, except the fourth. The interval for the fourth grade was from April, 1971, to April, 1972.

## Self-Concept

The Self Appraisal Inventory (SAI), developed by the Instructional Objectives Exchange, was administered to a random sample of sixty pupils from grades one, two, and three (twenty pupils from each grade). According to these data, as presented in Table 11, the group had an acceptable level of self-esteem (scored positively more than fifty per cent of the time) in peer relations, family interactions, scholastic endeavors, and general view of themselves (all the scales on the instrument). This group will be used as a comparison group for future assessment for self-concept in this school.

TABLE 11

PER CENT OF POSITIVE RESPONSES ON THE
SELF-APPRAISAL INVENTORY
GRADES ONE, TWO, AND THREE

| | Subscales | | | |
|---|---|---|---|---|
| Number | Peer | Family | Scholastic | General |
| 60 | 67.0 | 62.0 | 74.0 | 73.0 |

## Attitude Toward School

The sample of pupils tested for self-concept also was tested for attitude toward school. The School Sentiment Index (SSI), developed by the Instructional Objectives Exchange, was administered to the pupils. The data are presented in Table 12. According to these data the pupils had positive attitudes (responded positively more than fifty per cent of the time) toward teacher's behavior, relationship with peer groups, school subjects, the school as a social center, and general orientation to school.

## Openness of School Climate

A random sample of teachers at Gilbert was asked to complete anonymously the Organizational Climate Index (OCI), developed by George Stern of Syracuse University. OCI presents the respondent with 300 statements which he is to answer true or false as applicable to his school. After compilation, the items on the OCI provide data from the respondent on thirty need-press scales postulated by Henry A. Murray and associates at Harvard University in 1938. Further analysis of these data produces six OCI factors, which are called first-order factors. The first five first-order describe a second-order factor called "development press", which is the capacity of the organizational environment to support, satisfy or reward self-actualizing behavior. Another second-order factor "control press", described by impulse control, refers to those characteristics of the environment which inhibit or restrict personal expressiveness. A copy of Murray's Need Press Scales and a copy of the six OCI factors and their definitions are presented in the Appendix.

TABLE 12

PER CENT OF POSITIVE RESPONSES ON THE
SCHOOL SENTIMENT INDEX
GRADES ONE, TWO, AND THREE

| | Subscales | | | | |
|---|---|---|---|---|---|
| Number | Teachers | Peer | School Subjects | General | School Climate |
| 60 | 72 | 69 | 85 | 79 | 66 |

Presented in Table 13 are data on the organizational climate at Gilbert for a two-year period. The raw score for each factor was converted to standard score with a mean of 50 and a standard deviation of 10.

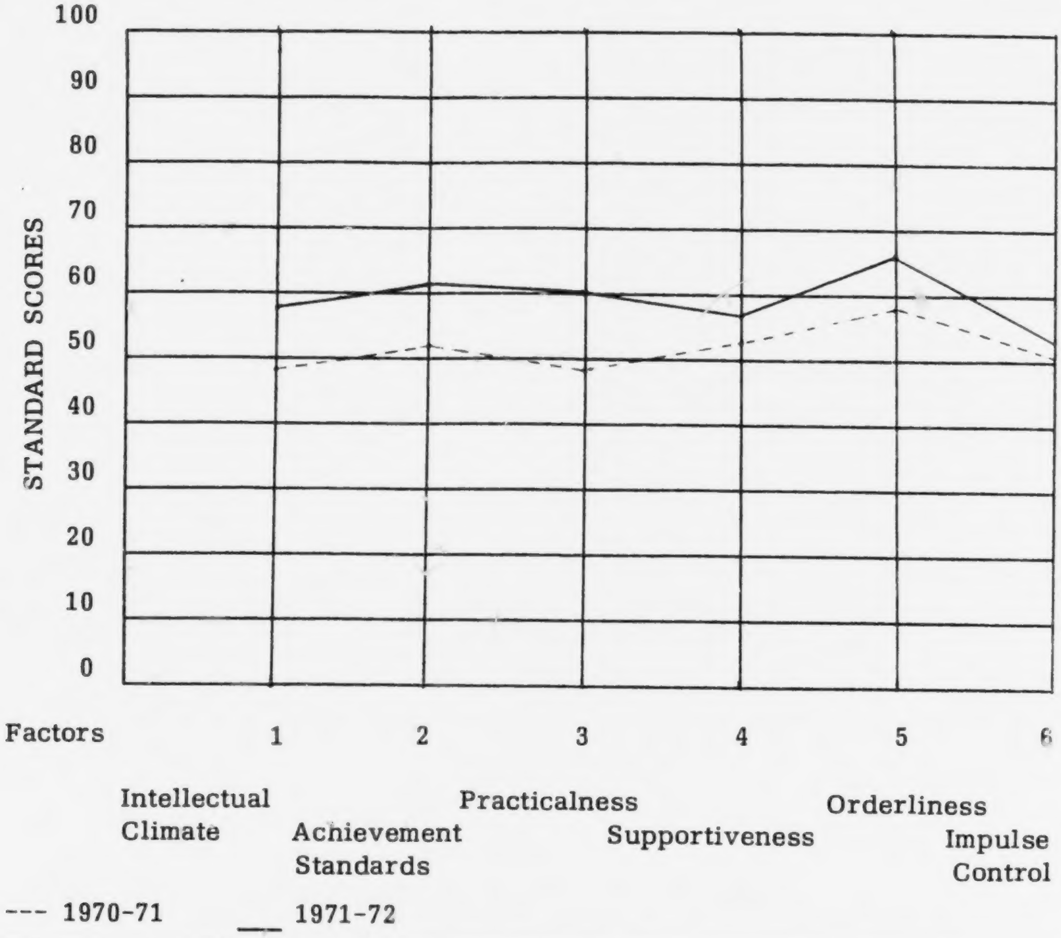
As shown in Table 13, the sample of teachers included in the FY'71 OCI study viewed the climate at Gilbert as being supportive and satisfying to self-actualizing behavior. Scores on each factor were on or above the mean. In FY'72, the sample of teachers involved in the OCI study viewed the climate as being even more open then in FY'71. Scores were higher on each factor. In summary, according to these data, teachers perceived the climate at Gilbert as being conducive to intellectual activity, achievement, supportiveness, and self-actualizing behavior.

Attendance

One of the objectives of the school was for the percentage of attendance in each grade to increase by two points above the 1970-71 percentage of attendance. The percentage of attendance for each grade for FY'71 and FY'72 are shown in Table 14.

TABLE 13

SCHOOL PROFILE OF STANDARD FACTOR SCORES ON
THE ORGANIZATIONAL CLIMATE INDEX
1971-72 AND 1970-71



According to the attendance data presented in Table 14, only the pre-kindergarten class, first and fifth grades met the objectives. The fourth and seventh grades showed decrease and the other grades either maintained the same percentage of attendance or showed only slight increases. The attendance of all pupils compared to the attendance of the $S_3$ population (Table 3, per cent of attendance column) showed that the pupils who remained at Gilbert attended better then those who were mobile.

### TABLE 14

### YEARLY PERCENTAGE OF ATTENDANCE FOR ALL PUPILS BY GRADES 1971-72 AND 1970-71

| Grade | 1971-72 | 1970-71 |
|---|---|---|
| A.M. Kindergarten | 88.3 | 82.1 |
| P.M. Kindergarten | 83.3 | 82.2 |
| 1 | 88.1 | 86.2 |
| 2 | 91.2 | 90.2 |
| 3 | 90.1 | 89.5 |
| 4 | 91.8 | 93.8 |
| 5 | 93.4 | 91.2 |
| 6 | 90.7 | 90.6 |
| 7 | 87.5 | 88.3 |
| Special Education | 84.4 | 83.9 |
| Average | 89.5 | 88.3 |

As shown in Table 3, when correlation between attendance and reading gain scores were computed no significant correlation was found between the two variables. Consequently, it seems that attendance did not affect the reading performance of the pupil.

## VIII. COST ANALYSIS

The data presented in Table 15 show the relative cost for a one-grade-unit of gain based on the rate of reading gain in FY'72 and the amount of funds spent. To compute these costs expenditures were taken from the General Funds Report, June 1972, and the Trust and Agency Report, June 1972. From these figures, estimates were made of the per-pupil cost from general funds and from special projects (compensatory funds). These data also show the cost in compensatory funds for each unit of effectiveness -- effectiveness as determined in the effectiveness-acceptability study in 1972. The reader is cautioned that these data are not exact or finite; rather, broad estimates were made based on information obtained from the school staff relative to the utilization of resources.

According to these data the per-pupil cost was the same in each grade; however, due to the varying rates of gain the cost for a one-grade-unit of gain ranged from a high of approximately of $2,000 to a low of $950. These data indicate that the amount of funds spent did not determine reading progress. The rate of reading gain varied by grades, ranging from achieving a high of 78 per cent of the expected gain to achieving a low of 38 per cent of the expected gain.

In relating costs to effectiveness, the data indicated that the amount of compensatory funds did not influence the effectiveness of the reading program. For the same amount of compensatory funds, each grade obtained a different per cent of effectiveness, ranging from a high of 350 per cent to a low of 40 per cent.

These data are not finite enough to conclude that compensatory funds do not affect learning. They do, however, lead to the conclusion that more careful consideration should be given to the utilization of funds so that maximum results can be obtained from the services provided through special projects.

## TABLE 15

## COST ANALYSIS OF READING GAINS BY GRADES
## TOTAL SCHOOL AVERAGE DAILY ATTENDANCE (ADA) K-7 = 432

| | Grades | | | | | | |
|---|---|---|---|---|---|---|---|
| | Second | Third | Fourth | Fifth | Sixth | Seventh | Average |
| ADA | 68.0 | 59.0 | 54.0 | 43.0 | 43.0 | 35.0 | 50.3 |
| Per-Pupil Cost | | | | | | | |
| A. General Funds | | | | | | | |
| 1. Regular | | | | | | | |
| a. Salary | $620.91 | $ 620.91 | $620.91 | $ 620.91 | $ 620.91 | $ 620.91 | $ 620.91 |
| b. Non-salary | 51.29 | 51.29 | 51.29 | 51.29 | 51.29 | 51.29 | 51.29 |
| c. Total | $672.20 | $ 672.20 | $672.20 | $ 672.20 | $ 672.20 | $ 672.20 | $ 672.20 |
| 2. CIP | | | | | | | |
| Non-salary | $ 1.26 | $ 1.26 | $ 1.26 | $ 1.26 | $ 1.26 | $ 1.26 | $ 1.26 |
| 3. Total General Funds | | | | | | | |
| a. Salary | $620.91 | $ 620.91 | $620.91 | $ 620.91 | $ 620.91 | $ 620.91 | $ 620.91 |
| b. Non-salary | 52.55 | 52.55 | 52.55 | 52.55 | 52.55 | 52.55 | 52.55 |
| c. TOTAL GENERAL FUNDS | $673.46 | $ 673.46 | $673.46 | $ 673.46 | $ 673.46 | $ 673.46 | $ 673.46 |
| B. Compensatory Funds | | | | | | | |
| 1. ESAP | | | | | | | |
| a. Salary | $ 1.61 | $ 1.61 | $ 1.61 | $ 1.61 | $ 1.61 | $ 1.61 | $ 1.61 |
| b. Non-salary | 2.56 | 2.56 | 2.56 | 2.56 | 2.56 | 2.56 | 2.56 |
| c. TOTAL ESAP | $ 4.17 | $ 4.17 | $ 4.17 | $ 4.17 | $ 4.17 | $ 4.17 | $ 4.17 |
| 2. Title I | | | | | | | |
| a. Salary | $ 81.83 | $ 81.83 | $ 81.83 | $ 81.83 | $ 81.83 | $ 81.83 | $ 81.83 |
| b. Non-salary | 5.48 | 5.48 | 5.48 | 5.48 | 5.48 | 5.48 | 5.48 |
| c. TOTAL TITLE I | $ 87.31 | $ 87.31 | $ 87.31 | $ 87.31 | $ 87.31 | $ 87.31 | $ 87.31 |
| 3. Title II | | | | | | | |
| Non-salary | $ 0.33 | $ 0.33 | $ 0.33 | $ 0.33 | $ 0.33 | $ 0.33 | $ 0.33 |
| 4. COP | | | | | | | |
| Non-salary (tuition) | $ 4.42 | $ 4.42 | $ 4.42 | $ 4.42 | $ 4.42 | $ 4.42 | $ 4.42 |
| 5. Total Compensatory Funds | | | | | | | |
| a. Salary | $ 83.44 | $ 83.44 | $ 83.44 | $ 83.44 | $ 83.44 | $ 83.44 | $ 83.44 |
| b. Non-salary | 12.79 | 12.79 | 12.79 | 12.79 | 12.79 | 12.79 | 12.79 |
| c. TOTAL COMPENSATORY FUNDS | $ 96.23 | $ 96.23 | $ 96.23 | $ 96.23 | $ 96.23 | $ 96.23 | $ 96.23 |
| C. Total Per-Pupil Cost | | | | | | | |
| 1. General Funds | $673.46 | $ 673.46 | $673.46 | $ 673.46 | $ 673.46 | $ 673.46 | $ 673.46 |
| 2. Compensatory Funds | 96.23 | 96.23 | 96.23 | 96.23 | 96.23 | 96.23 | 96.23 |
| 3. TOTAL PER-PUPIL COST | $769.69 | $ 769.69 | $769.69 | $ 769.69 | $ 769.69 | $ 769.69 | $ 769.69 |
| D. Rate of Reading Gain (Per cent) | 78.0 | 38.0 | --- | 54.0 | 43.0 | 51.0 | 54.4 |
| E. Projected Cost for One-Grade-Unit of Gain | | | | | | | |
| 1. General Funds | $863.41 | $1,772.26 | --- | $1,247.15 | $1,566.19 | $1,320.51 | $1,237.98 |
| 2. Compensatory Funds | 123.37 | 253.24 | --- | 178.20 | 223.79 | 188.68 | 176.89 |
| 3. TOTAL PROJECTED COST FOR ONE-GRADE UNIT OF GAIN | $986.78 | $2,025.50 | --- | $1,425.35 | $1,789.98 | $1,509.19 | $1,414.87 |
| F. Gain Rate of Effectiveness | 100.0 | 67.0 | 237.0 | 40.0 | 250.0 | 350.0 | 174.0 |
| G. Expenditure Per ADA of Compensatory Funds for Each Unit of Effectiveness | $0.96 | $1.44 | $0.41 | $2.40 | $0.38 | $0.27 | $0.98 |

# IX. CONCLUSIONS

Based on the findings concerning pupil progress and the instructional program during FY'72, the following conclusions were drawn:

A. The objective that pupils who scored "C" or above on the Metropolitan Readiness Tests (MRT) would score 1.6 or above on the Metropolitan Achievement Tests (MAT) was not met. Only about one-third of the pupils who scored in the average or high normal ranges performed in the manner expected. However, nearly one-third of the pupils who scored in the low normal and low readiness ranges scored 1.6 or above on the MAT. The pupils who scored low on the pretest performed nearly as well as those pupils who scored high on the pretest.

B. The average performance of pupils in grades two, three, five, six, and seven did not meet the objective of a one month gain for each month of instruction (six months total). The second grade pupils came closest to meeting the requirement with five months gain.

C. In the longitudinal analysis of pupil progress over the two-year period (FY'71 and FY'72), the reading performance of pupils who took both pretest and posttest ($S_4$ population) varied as follows:

   1. The second and sixth grade pupils performed about the same in FY'72 as they did in FY'71.

   2. The third and fifth grade pupils did not perform nearly as well in FY'72 as they did in FY'71.

   3. The seventh grade pupils increased their performance in FY'72 over FY'71. In summary, over the two-year period the pupils did not realize gains consistently at a level that would raise their ending reading levels to the corresponding grade levels.

D. According to the prediction of performance based on the formula to determine the gain rate of effectiveness, pupils in grades two, four, six, and seven performed as predicted in reading. Pupils in all grades except the third grade performed as predicted in arithmetic.

E. Pupils in grades two through seven, which were the grades included in the study of the level of acceptability, performed at a level in reading which was approximately three-fifths of the national norms.

F. Pupils in general had an acceptable level of self-esteem in peer relationships, scholastic endeavors, family interactions, and general view of themselves, which were all the factors measured with the self-appraisal instrument.

G. Pupils had a positive attitude toward behavior of the teachers, relationship with peer groups, school subjects, the school as a center, and general orientation to school, which were all the factors measured by the attitude toward school instrument.

H. The over-all organizational climate of the school was viewed as being open during both fiscal years. The climate became more open during FY'72 then it was in FY'71.

I. The amount of funds spent seemingly did not relate significantly to the achievement of pupils. Basically, the per-pupil cost in compensatory funds was the same in all grades, yet the level of effectiveness varied widely among the grades.

J. There was no significant correlation between attendance and the reading gain scores of the $S_3$ groups.

K. The objective that each grade would increase the percentage of attendance by two points in FY'72 over FY'71 was not met by all grades.

L. The Career Opportunities Program (COP) participants worked with all grades; consequently, comparisons could not be made within the school. Gilbert will be used as a COP school in the over-all project evaluation and will be compared to other similar schools without COP teams.

M. The Youth-Tutoring-Youth Program was not as effective as this type of program usually can be.

## X. RECOMMENDATIONS

Based upon the findings and conclusions of this study, it is recommended that:

A. The faculty continue to seek promising and innovative educational practices which will contribute toward improved pupil performance in all grades.

B. Specific plans should be made to utilize services provided through compensatory funds so that maximum results would be obtained from these services.

C. Careful planning should be characteristic of faculty in-service activities in order to gain consistent pupil performance on a longitudinal basis, from grade to grade and among grades.

D. Special attention should be given results obtained by the use of paraprofessional personnel, including parents and pupils.

The faculty is to be commended for its efforts, interest, and concern in seeking to provide learning experiences which are conducive to improving pupil performance. The faculty is encouraged to continue its efforts to facilitate pupil progress in a manner that will continue to raise the rate of effectiveness to such a level which will raise the level of acceptability.

# APPENDIX

## MURRAY'S NEED-PRESS SCALES

1. Abasement-assurance: self-deprecation versus self-confidence
2. Achievement: striving for success through personal effort
3. Adaptability-defensiveness: acceptance of criticism versus resistance to suggestion
4. Affiliation-rejection: friendliness versus unfriendliness
5. Aggression-blame avoidance: hostility versus disorganization

6. Change-sameness: flexibility versus routine
7. Conjunctivity-disjunctivity: planfulness versus organization
8. Counteraction-inferiority avoidance: restriving after failure versus withdrawal
9. Deference-restiveness: respect for authority versus rebelliousness
10. Dominance-tolerance: ascendance versus forbearance

11. Ego Achievement: striving for power through social action
12. Emotionality-placidity: expressiveness versus restraint
13. Energy-passivity: effort versus inertia
14. Exhibitionism-inferiority avoidance: attention-seeking versus shyness
15. Fantasied achievement: daydreams of extraordinary public recognition

16. Harm avoidance--risk-taking: fearfulness versus thrill seeking
17. Humanities-social sciences: interests in the humanities and the social sciences
18. Impulsiveness-deliberation: impetuosity versus reflection
19. Narcissism: vanity
20. Nuturance-rejection: helping others versus indifference

21. Objectivity-projectivity: detachment versus superstition (AI) or suspicion (EI)
22. Order-disorder: compulsive organization of details versus carelessness
23. Play-work: pleasure-seeking versus purposefulness
24. Practicalness-impracticalness: interest in pratical activities versus indifference
25. Reflectiveness: introspective contemplation

26. Science: interest in the natural sciences
27. Sensuality-puritanism: interest in sensory and aesthetic experiences
28. Sexuality-prudishness: heterosexual interests versus inhibitions of heterosexual interests
29. Supplication-autonomy: dependency versus self-reliance
30. Understanding: intellectuality

# ORGANIZATIONAL CLIMATE INDEX FACTORS

## A. Development Press

1. Intellectual climate -- This factor describes a concern with intellectual activity, social action, and personal effectiveness. It is based on the scales for humanities, social science, science, reflectiveness, understanding, fantasied achievement, exhibitionism, and change. A school that scores high on this factor is one in which there is a high degree of intellectuality, heterosexual interests, flexibility, and attention seeking.

2. Achievement standards -- This is the factor reflecting press for achievement. Schools high on this factor stress hard work, perseverance, and a total day-by-day commitment to institutional purposes. It is defined by counteraction, energy, achievement, emotionality, and ego achievement.

3. Practicalness -- This factor suggests an environmental dimension of practicality tempered with friendliness. It is defined by practicalness and nurturance. A school that scores high on this factor is one in which the teachers feel there is high interest in practical activity and a desire for helping others.

4. Supportiveness -- This factor deals with aspects of the organizational environment that respect the integrity of the teacher as a person, but the implication is that dependency needs must be supported rather than personal autonomy emphasized. It might be considered a measure of democratic paternalism. The scales defining it are assurance, tolerance, objectivity, affiliation, conjunctivity, supplication, blame avoidance, harm avoidance, and nurturance. A school that scores high on this factor is one in which the teachers feel a high degree of self-confidence, friendliness, and planfulness.

5. Orderliness -- The components of this factor are concerned with the press for organizational structure, procedure, orderliness, and a respect for authority. Conformity to community pressures and an effort to maintain a proper institutional image probably are also concomitants of a high score on this factor. It is based on order, narcissism, adaptability, conjunctivity, deference, and harm avoidance. A school that scores high on this factor is one in which the teachers feel there is a compulsive organization of details, acceptance of criticism, respect for authority, vanity, and planfulness.

## B. Control Press

In addition to the reflection of factors (1) and (2) under Development Press, Control Press involves:

Impulse control -- This factor implies a high level of constraint and organizational restrictiveness. There is little opportunity for personal expression or for any form of impulsive behavior. It is based on work instead of play; prudishness versus sexuality; aggression versus blame avoidance; impulsiveness versus deliberation; emotionality versus placidity; and exhibitionism versus inferiority avoidance. A school that scores high on this factor is one in which the teachers feel there is a high degree of purposefulness, heterosexual interests, hostility, impetuosity, expressiveness, and restriving after failure.

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RESEARCH AND DEVELOPMENT REPORT

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# PEYTON FOREST ELEMENTARY SCHOOL
1971-72

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# I. RATIONALE

Peyton Forest Elementary School is located in Southwest Atlanta. Operation of the school began at the opening of the 1968-69 school year. The school site of 25 acres is adjacent to a park site of 15 acres. This provides an unusually beautiful setting. The first phase of development of the community park was initialed during the 1971-72 school year.

The open plan design was utilized in the construction of the Peyton Forest Elementary School building. This facilitates the team teaching and nongraded organization. Capacity of the school is 500 pupils.

The core of the school building is called the commons area. This is a large area which is utilized in various ways. For example, large groups meet for instructional purposes, audio-visuals are used with extemely large groups, assemblies are held, tests are administered, displays are made, programs are presented, indoor physical education activities are taught and the like.

Instructional areas, designated as ells, the media center, cafeteria, faculty rest rooms and the administrative area form the perimeter. Each ell comprises instructional space, a teacher's work room, a storage room, rest room facilities for boys and girls, an outside exit, and a wet area (containing one or more drinking fountains, a double sink and an uncarpeted area).

The school community reflects a considerable variety of housing patterns and services available. Residential housing includes old and new single family dwellings, apartments, townhouses, and condominiums. Housing ranges from beginning blight (evidence of continued neglect) to upper middle class homes. Large undeveloped areas are scattered throughout the community. Future development of the vacant land is a community concern. The northern boundary includes commercial establishments. Service stations, banks, night clubs, a mortuary, an animal hospital, florists, package stores, a building supply firm, and used car lots represent the services available.

The housing pattern also suggests a wide income range. Retired persons with fixed incomes as well as persons active in sales, services, and the professions are community residents. Less than two per cent of the parents requested applications for the Atlanta Public Schools free or reduced price lunch program.

The enrollment at Peyton Forest has always been under capacity. However, the primary ell has always reflected a larger number of pupils than any other area in the building.

Pupils were originally assigned to the school under freedom of choice. The establishment of attendance zones for each school, in keeping with the federal court order, resulted in many pupils being zoned out of the school. Near the close of the 1971-72 school year, a large segment of the school population, 135 pupils, were transferred to other schools. This represented approximately one-third of the pupils who were involved in the Instructional Assistance Program (IAP). The closing of the West Haven School at the beginning of the 1972-73 school year and the subsequent reassignment of 80 of these pupils to Peyton Forest will introduce another large group of new pupils.

Faculty turnover has been frequent. The challenge of team teaching, the nongraded organization, maternity leaves, resignations resulting from transfers of husbands, in addition to the lottery, have been contributing factors.

Since the opening of the Peyton Forest Elementary School, the faculty and pupils have had to do continuous orientation. None of the teachers had taught in schools where the pupils had been previously enrolled. This factor led to staff concerns in regard to achievement in reading. Test scores from the Comprehensive Instructional Program (CIP) and *Metropolitan Achievement Tests* (MAT) provided supportive data. This concern crystallized during the Instructional Development Institute which was conducted during the summer of 1971 for inservice training. The eight staff members involved in the institute; six classroom teachers, librarian, and principal decided that emphasis upon the area of reading and language arts would be a feasible approach to implementing staff concerns.

## Supporting Services

In addition to the services provided by the regular budget of the Atlanta Public Schools, Peyton Forest received the following resources for the instructional program:

### A. Instructional Assistance Program (IAP)

The Instructional Assistance Program (IAP) team at Peyton Forest consisted of a lead teacher, an art teacher aide, a music teacher aide, and a physical education teacher aide. This team provided educational activities for successive groups of pupils.

Since the emphasis at Peyton Forest for the 1971-72 school year was on reading in levels one through five, the IAP lead teacher and aides released the classroom teachers in these levels for the planning of reading. While the teachers were planning, the IAP team executed activities related to art, music, and physical education. In addition, the team assisted the teachers by working with small or large groups of pupils, by duplicating materials, filing completed reading work in folders, making stencils, drawing, making games, previewing materials and the like.

B. Career Opportunities Program (COP)

Two of the three Instructional Assistance Program aides were involved in the Career Opportunities Program (COP) training program. In the COP, the paraprofessionals were enrolled in accredited colleges and working toward professional certification.

## II. NEEDS OF THE PUPILS

After an examination of the reading records of the pupils, the principal, librarian, and teachers decided that greater emphasis should be placed on improving reading in levels one through five. The needs determined by the school staff through observation and the use of diagnostic instruments included the following:

A. To develop a curiosity of and a thirst for knowledge through reading.

B. To develop the basic skills in reading.

C. To develop and/or improve the ability to transfer the basic reading skills to other subject areas.

D. To develop attention span.

E. To develop a more positive self-concept.

F. To develop a liking for school and a desire to attend.

G. To encourage academic achievement through parental involvement.

## III. GOALS OF THE PROGRAM

The goals of the instructional program at Peyton Forest were based on pupils' needs as identified by the school staff through individual pupil assessment. The major goals of the program were:

A. To provide an instructional program in reading based upon the needs of individual pupils.

B. To provide opportunities for the child to relate reading to other activities.

C. To provide a reading program which stressed the development or improvement of the basic reading skills.

D. To provide activities in reading which gave the pupils immediate success.

E. To expose the pupil to many books and materials and to encourage his exploration with different media.

F. To provide situations for the pupil to react positively towards school, other pupils, and oneself.

G. To provide opportunities for parents' reaction to the reading program.

The following goals were formulated specifically for the Instructional Assistance Program (IAP):

A. To provide professional and paraprofessional personnel to implement the instructional programs needed by the pupils.

B. To provide new organizational and administrative structures which increased teacher effectiveness and pupil achievement.

## IV. CRITICAL VARIABLES

The following identified critical variables were used in evaluating the reading program at Peyton Forest Elementary School:

A. Reading skills

   1. Word recognition
   2. Word analysis
   3. Comprehension
   4. Application of reading skills to other subjects

B. Self-Concept

C. Attitude toward school

   1. Teachers
   2. Other pupils
   3. Reading

D. Parental Involvement

## V. OBJECTIVES

The faculty members who were identified to provide an intensive reading program for 325 pupils developed the following objectives:

A. Given an intensive program in reading, the pupils in levels one through five will show a month's gain for each month in the program as measured by the Metropolitan Achievement Tests (MAT).

B. Pupils in levels one through five will show an increased interest in reading as shown on the Parent Survey .

C. The parents of the pupils in levels one through five will show their interest in the pupils' instructional program by returning the Parent Survey on effects of the reading program.

D. On a longitudinal study, a random sample of pupils in levels one through five will show a more positive attitude towards school and self-concept as measured by the School Sentiment Index and the Self-Appraisal Inventory.

## VI. MANAGEMENT AND CONTROL

Initially, there were plans at Peyton Forest Elementary School to emphasize reading and raise the reading levels of pupils in levels one through four. However, the fourth level pupils and the fifth level pupils were housed in the same section of the building; so the physical structure of the building led the faculty team members who were involved to a decision that the fifth level pupils should be included, also. Ability grouping was used throughout the building in each section called an ell, and, the inclusion of the fifth level pupils did not necessitate changes in needs nor goals.

The Instructional Assistance Program (IAP) team consisting of a lead teacher and three aides was completed in September of 1971. This teams' primary goal was to provide activities in art, music, and physical education while freeing the regular classroom teachers for planning in the area of reading. Since none of the three aides had been trained in any of the areas of art, music, and physical education, inservice training had to be done.

Materials were purchased or ordered prior to the initiation of the Instructional Assistance Program (IAP) involving reading. The funds that were believed to be available for reading materials were cut, and the materials that had been previously purchased or ordered could not be adapted to the reading program.

The requisitions, of three consecutive years, for supplementary readers for Peyton Forest Elementary School were never filled; therefore, varied parallel readers were not available to the pupils. Explanations, at different times, concerning the readers were (1) there were no funds available, (2) an over-sight had been made, and (3) perhaps the readers could be secured soon. In essence, the pupils failed to get many opportunities to expand on their direct reading instruction. This meant that readers on the pupils' interest levels, as well as their functioning level, were not available.

To a limited degree, there were books in the library that could have been used but this involved the teacher reading through many books and selecting for individual pupils. The teachers believed that this was an area in which additional assistance would have promoted an improved reading program.

Eleven classroom teachers were involved in the intensive reading program. There were two teachers at each level, one through five. The eleventh teacher had a combination fourth and fifth level class.

## Study of the Organizational Climate Index (OCI)

The Organizational Climate Index (OCI), developed by George Stern of Syracuse University, was used to obtain data relative to the school climate as perceived by the teachers. The instrument containing 300 statements to which a randomly selected group of teachers were asked individually to respond "true" or "false" was administered during May, 1971. The objective was to provide feedback on the school climate for possible data for analysis and discussion by the faculty of that school. In addition, the results may be used to provide baseline data for a longitudinal study and to determine if the school climate affects the achievement of the pupils.

Responses to the 300 statements of the OCI were compiled and classified according to 30 of Murray's need-press scales. These data were used to describe the degree of openness which exists in the organizational structure of Peyton Forest Elementary School as it relates to two areas. The first is the "development press" which refers to five factors believed to be characteristic in the environment which tend to support, satisfy, or reward self-actualizing behavior. The second area is the " control press" which describes factors in the environment which tend to inhibit or restrict personal expressiveness. Definitions of the scales on the OCI are as follows:

### DEFINITIONS OF SCALES FROM WHICH DEVELOPMENT PRESS AND CONTROL PRESS ARE DERIVED IN THE ORGANIZATIONAL CLIMATE INDEX (OCI)

---

1. Abasement-assurance: self-deprecation versus self-confidence.
2. Achievement: striving for success through personal effort.
3. Adaptability-defensiveness: acceptance of criticism versus resistance to suggestion.
4. Affiliation-rejection: friendliness versus unfriendliness.
5. Aggression-blame avoidance: hostility versus disorganization.
6. Change-sameness: flexibility versus routine.
7. Conjunctivity-disjunctivity: planfulness versus organization.
8. Counteraction-inferiority avoidance: restriving after failure versus withdrawal.
9. Deference-restriveness: respect for authority versus rebelliousness.
10. Dominance-tolerance: ascendance versus forebearance.

11. Ego achievement: striving for power through social action.
12. Emotionality-placidity: expressiveness versus restraint.
13. Energy-passivity: effort versus inertia.
14. Exhibitionism-inferiority avoidance: attention-seeking versus shyness.

15. Fantasied achievement: daydreams of extraordinary public recognition.
16. Harm avoidance -- risk-taking: fearfulness versus thrill seeking.
17. Humanities-social sciences: interests in the humanities and the social sciences.
18. Impulsiveness-deliberation: impetuosity versus reflection.
19. Narcissim: vanity.
20. Nurturance-rejection: helping others versus indifference.

21. Objectivity-projectivity: detachment versus superstition (AI) or suspicion (EI).
22. Order-disorder: compulsive organization of details versus carelessness.
23. Play-work: pleasure-seeking versus purposefulness.
24. Practicalness-impracticalness: interest in practical activities versus indifference.
25. Reflectiveness: introspective contemplation.
26. Science: interest in the natural sciences.
27. Sensuality-puritanism: interest in sensory and aesthetic experiences.
28. Sexuality-prudishness: heterosexual interests versus inhibitions of heterosexual interests.
29. Supplication-autonomy: dependency versus self-reliance.
30. Understanding: intellectuality.

---

A. Development Press

1. Intellectual climate -- This factor describes a concern with intellectual activity, social action, and personal effectiveness. It is based on the scales for humanities, social science, science reflectiveness, understanding, fantasied achievement, exhibitionism, and change. A school that scores high on this factor is one in which the teachers feel that there is a high degree of intellectuality, heterosexual interests, flexibility, and attention seeking.

2. Achievement standards -- This is the factor reflecting press of achievement. Schools high on this factor stress hard work, a total day-by-day commitment to institutional purposes, and perseverance. It is defined by counteraction, energy, achievement, emotionality, and ego achievement.

3. Practicalness -- This factor suggests an environmental dimension of practicality tempered with friendliness. It is defined by practicalness and nurturance. A school that scores high on this factor is one in which the teachers feel there is a high interest in practical activity and a desire for helping others.

4. Supportiveness -- This factor deals with aspects of the organizational environment that respect the integrity of the teacher as a person, but the implication is that dependency needs must be supported rather than personal autonomy emphasized. It might be considered a measure of democratic paternalism. The scales defining it are assurance, tolerance, objectivity, affiliation, conjunctivity, supplication, blame avoidance, harm avoidance, and nurturance. A school that scores high on this factor is one in which the teachers feel a high degree of self-confidence, friendliness, and planfulness

5. Orderliness -- The components of this factor are concerned with the press for organizational structure, procedure, orderliness, and a respect for authority. Conformity to community pressures and an effort to maintain a proper institutional image probably are also concomitants of a high score on this factor. It is based on order, narcissism, adaptability, conjunctivity, deference, and harm avoidance. A school that scores high on this factor is one in which the teachers feel there is a compulsive organization of details, acceptance of criticism, respect for authority, vanity, and planfulness.

B. Control Press

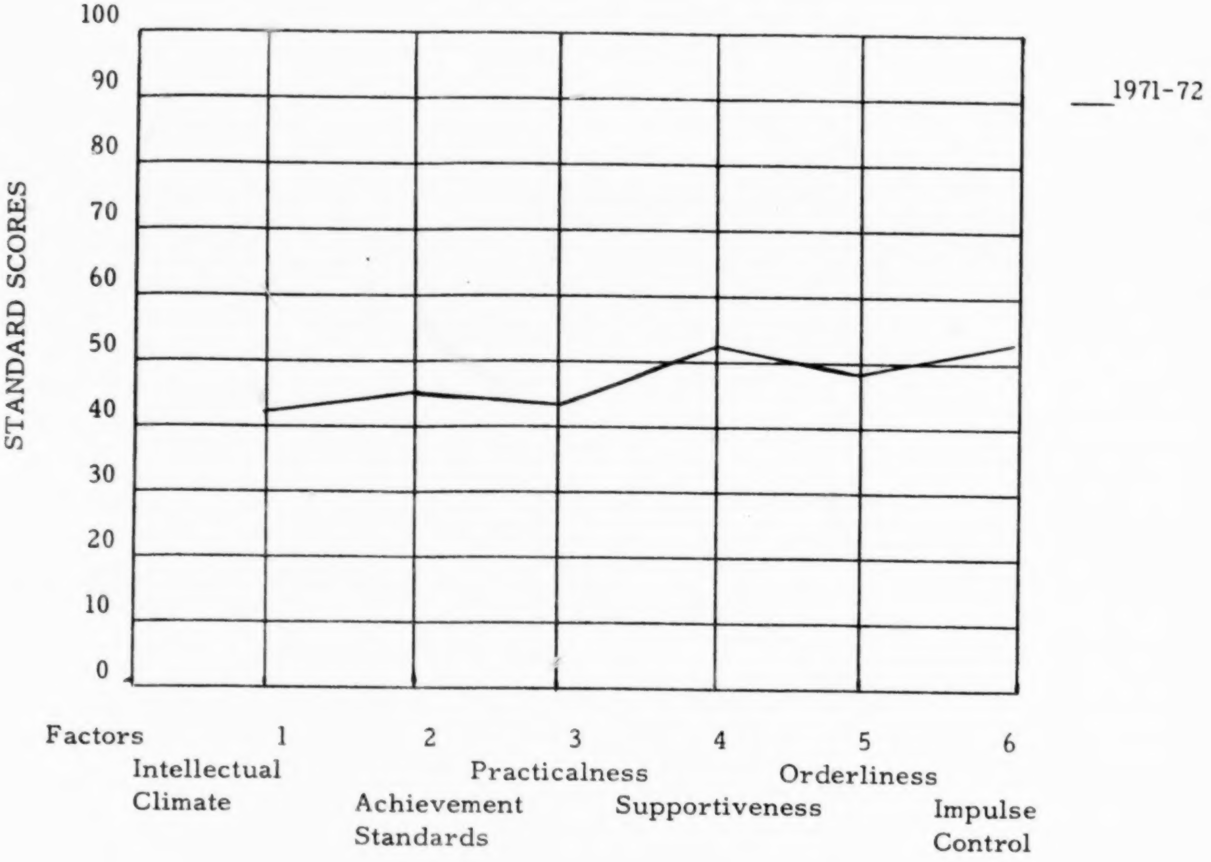
In addition to the reflection of factors 1 and 2 under "development press," control press involved:

Impulse control -- This factor implies a high level of constraint and organizational restrictiveness. There is little opportunity for personal expression or for any form of impulsive behavior. It is based on work instead of play; prudishness versus sexuality; aggression versus blame avoidance; impulsiveness versus deliberation; emotionality versus placidity; and exhibitionism versus inferiority avoidance. A school that scores high on this factor is one in which the teachers feel there is a high degree of purposefulness, heterosexual interests, hostility, impetuosity, expressiveness, and restriving after failu

The profile for Peyton Forest Elementary School is shown in Figure 1. The scores have been converted to standard scores. The mean is 48.2 and the standard deviation is 4.8.

FIGURE 1

SCHOOL PROFILE OF STANDARD FACTOR SCORES ON THE ORGANIZATIONAL CLIMATE INDEX



According to the data, the teachers at Peyton Forest Elementary School believed that the school climate was relatively closed except on the two factors of supportiveness and impulse control. Among the twenty-six schools in the study, Peyton Forest School rated number 7 on impulse control; number 10 on supportiveness; number sixteen on both achievement standards and orderliness; number 19 on intellectual climate and number 21 on practicalness. The low ranks on intellectual climate and practicalness indicate that the teachers believe there is not much concern with intellectual activity and there is little interest in practial activity and a desire for helping others.

## VII. PROCESS

The instructional program was designed to enable the classroom teachers to receive direct assistance from the paraprofessionals and the lead teacher during the reading and planning periods. For reading, the time varied from one and one-fourth hours per week to six and one-fourth hours per week. The time was allotted according to the initial needs of the reading groups in September; however, some rescheduling had to be done to include the fifth level reading groups.

There were 32 reading groups, involving 320 pupils, 11 teachers, three aides, and the lead teacher, who participated in the reading program. The number of pupils in a group ranged from one to sixteen. The groups were continuously reorganized in an effort to assure maximum growth for individual pupils.

The principal previewed materials, shared ideas and materials, and arranged for workshops and preview sessions that were conducted by consultants of educational book companies and/or staff members. Also, the principal made frequent visits to the classes during the reading period and often assisted with the instructional program while visiting.

The lead teacher planned and scheduled the time to be spent by the paraprofessionals in various activities. Additionally, the lead teacher provided inservice training and guidance for the instructional aides. The paraprofessionals' day was divided into three parts -- morning, mid-morning and afternoon. The morning period was the reading period throughout the building. The paraprofessionals directly assisted the classroom teachers by working with small groups of pupils and/or individual pupils. Word attack skills, comprehension, phonetic analysis, and the like were given practical application through games, work sheets, workbooks, board work or they were used with audio-visual equipment. The aides provided assistance with assignments after directions had been given by the teacher. Also, the aides often went with groups of pupils to the library to do extensive work on a particular phase of reading, or they guided pupils in working on individual projects.

The mid-morning activities, for the aides, involved duplicating materials; filing completed reading work in folders; making stencils; drawing; making games; previewing materials; and planning for large group activities. During this time, the lead teacher also met with the paraprofessionals for a scheduled training session.

The aides spent the afternoons with classes of pupils. The teachers were released from class one hour and a half weekly to plan indepth reading activities. They were released in pairs except in the fifth level where there were three teachers. While the teachers were planning, the paraprofessiona conducted large and/or small group activities. The activities were informative as well as relaxing. Physical education, art, and music activities were included. The groups of pupils ranged in number from 53 to 86.

On Thursdays for one hour, the six primary ell teachers; or the five intermediate ell teachers had team meetings. This was an additional two hours of released time each month. At this time, projects were introduced, innovations were shared, and comparisons were made of what was being taught in the different classes. Simultaneously, the paraprofessionals provided activities for the pupils. There were 175 pupils in the primary ell and 139 pupils in the intermediate ell.

During the school year various small projects were initiated by individual teachers or groups of teachers. An idea conceived by one of the intermediate team teachers was that of sharing ideas and materials with other staff members throughout the building. It was believed that many of the teachers had contributions to share that might be beneficial to others; therefore, a project called "Can Teachers Teach Another Way?" was exibited one Tuesday afternoon in lieu of a faculty meeting. At this time books, leaflets, games, and materials whether teacher-made or commercially produced were on display. Samples and directions were shared. Many new ideas were acquired by all.

Another small school project that was conceived by a second level team teacher was termed "Read-In." This project was in operation in the primary ell. Its purpose was to reinforce the idea that reading should be enjoyed and not forced, and a period of 30 minutes was provided each day for the pupils to read or write stories while the teachers read stories to those pupils who wished to listen.

Initially, the "Read-In" project was successful, but after the first two or three weeks there seemed to be a loss of interest in the program. The project was discontinued for a week while the general objectives of "Read-In" were discussed with the pupils. On Friday of that week, the pupils voted as to whether or not they would like to continue the program. The pupils counted the ballots, and there was a unanimous decision to continue "Read-In" the following weeks. The project was continued and proved quite successful for the remainder of the school year.

## VIII. EVALUATION

The program at Peyton Forest was evaluated in terms of the progress made in achieving goals and behavioral objectives. The following methods were used to measure the success of the school program:

A. Gains in reading were assessed by comparing scores on the Metropolitan Readiness Tests (MRT) and the Metropolitan Achievement Tests (MAT) for the first grades. Similar comparisons were made in grades two, three, and five between the pretest and posttests of the MAT.

B. The Parent Survey was used to show an increased interest in reading by pupils as determined by the parents.

C. The Parent Survey, conducted in May, 1972, was to determine the effects of the intensive reading program as viewed by the parents.

D. The School Sentiment Index (SSI) and the Self-Appraisal Inventory (SAI) were administered to a random sample of pupils in levels one through five. The results will be used for a longitudinal study.

E. An analysis of the cost effectiveness was made at the end of the school year to give an indication of the combined costs of all resources relating to the instructional program.

# IX. FINDINGS

## Objective A

Objective A stated that the pupils in levels one through five would show a month's gain for each month in the program as measured by the *Metropolitan Achievement Tests* (MAT). There was a period of approximately six months between the pretest and posttest. *Did the pupils show a month's gain for each month in the program?*

### First Grade

Table 1 shows the scores of all 45 pupils in the program on the *Metropolitan Readiness Tests* (MRT). It was found that 18 per cent of the pupils made scores above 76 and, therefore, had a letter rating of A and a superior readiness status; 56 per cent made scores from 64-76 and had a rating of B and a high normal readiness status; 18 per cent scores from 45-63 and had a letter rating of C with an average readiness status; eight per cent scored from 24-44 and had a letter rating of D with a low normal readiness status; and none of the pupils scored below 24 with a low readiness status.

TABLE 1

DISTRIBUTION OF LETTER RATING AND READINESS STATUS
CORRESPONDING TO VARIOUS RANGES OF TOTAL SCORE
ON THE *METROPOLITAN READINESS TESTS*
(FIRST GRADE)

| Number of Pupils | Score Range | Letter Rating | Readiness Status | Significance |
|---|---|---|---|---|
| 8 | Above 76 | A | Superior | Apparently very well prepared for first grade work. Should be given opportunity for enrichment work in line with abilities indicated. |
| 25 | 64-76 | B | High Normal | Good prospects for success in first grade work, provided indications, such as health, emotional factors, etc., are consistent. |

TABLE 1 (cont'd)

| Number of Pupils | Score Range | Letter Rating | Readiness Status | Significance |
|---|---|---|---|---|
| 8 | 45-63 | C | Average | Likely to succeed in first grade work. A careful study should be made of the specific strengths and weaknesses of pupils in this group and their instruction planned accordingly. |
| 4 | 24-44 | D | Low Normal | Likely to have difficulty in first grade work. Should be assigned to slow section and given more individualized help. |
| 0 | Below 24 | E | Low | Chances of difficulty high under ordinary instructional conditions. Further readiness work, assignment to slow section, or individualized work is essential. |

In a comparison of the results found on the Metropolitan Readiness Tests certain facts became evident. Forty-one of the 45 pupils made scores of C or above on the MRT and should score at least 1.6 on the Metropolitan Achievement Tests (MAT). On the MAT it was found that the pupils averaged 2.3 on word knowledge; 1.9 on word achievement; 2.4 on reading and and 2.3 on total reading. These results show that most of the pupils were on or above grade level in reading at the end of the school year.

Table 2 shows the gains made on the Metropolitan Achievement Tests (MAT) between the pretest in the fall and the posttest in the spring for Peyton Forest Elementary School.

### Second Grade

In examining the pretest and posttest scores for the second grade pupils it was found that the gains made during the year were more than one month for each month in the program. Only on the word analysis subtest did the class achieve one per cent less than a month for a month in the program. The grade level scores on the posttest approached the level appropriate for entrance into the third grade.

## TABLE 2

## GAINS MADE ON THE METROPOLITAN ACHIEVEMENT TESTS PRETEST AND POSTTEST

### (GRADES 2, 3, 5)

| Subtest | Pretest | Gains | Per Cent of Expected Gains | Posttest |
|---|---|---|---|---|
| Second Grade | | | | |
| Word Knowledge | 2.0 | 0.84 | 136 | 2.9 |
| Word Analysis | 1.9 | 0.61 | 99 | 2.6 |
| Reading | 2.0 | 0.65 | 105 | 2.6 |
| Reading Total | 2.0 | 0.74 | 119 | 2.7 |
| Third Grade | | | | |
| Word Knowledge | 3.2 | 0.49 | 80 | 3.7 |
| Word Analysis | 2.9 | 0.41 | 66 | 3.2 |
| Reading | 3.0 | 0.37 | 60 | 3.4 |
| Fifth Grade | | | | |
| Word Knowledge | 4.9 | 0.22 | 35 | 5.1 |
| Reading | 4.9 | 0.37 | 59 | 5.2 |

### TABLE 3

### FREQUENCY DISTRIBUTION OF READING GAINS ON THE METROPOLITAN ACHIEVEMENT TESTS (GRADES 2, 3, 5)

| Gain (in Months) | 2nd Grade No. | 2nd Grade Per Cent | 3rd Grade No. | 3rd Grade Per Cent | 5th Grade No. | 5th Grade Per Cent |
|---|---|---|---|---|---|---|
| 10 or more | 11 | 27 | 12 | 24 | 13 | 20 |
| 8 - 9 | 3 | 7 | 5 | 10 | 10 | 15 |
| 6 - 7 | 6 | 15 | 5 | 10 | 5 | 8 |
| 4 - 5 | 5 | 12 | 5 | 10 | 9 | 14 |
| 2 - 3 | 5 | 12 | 7 | 14 | 6 | 9 |
| 0 - 1 | 5 | 12 | 6 | 12 | 9 | 14 |
| -1 - -2 | 4 | 10 | 3 | 6 | 2 | 3 |
| -3 or less | 2 | 5 | 6 | 12 | 12 | 18 |
| Totals | 41 | | 49 | | 66 | |

According to the data in Table 3, showing the frequency analysis of reading gains, 11 pupils (27 per cent) gained only one month or less for one month in the program, five pupils (12 per cent) gained from two to three months, five pupils gained from four to five months, and 20 pupils (49 per cent) gained from six to ten months or more. This means that approximately one-half of the second grade pupils gained one month or more for each month in the program and showed that pupil achievement was increased.

## Third Grade

In examining the gains made by the third grade on the Metropolitan Achievement Tests (MAT), it will be noted that the third grade pupils did begin the third grade approximately on grade level. Also, the gains made on each of the subtests were much less than a month for a month in the program.

Table 3 shows the frequency distribution of the reading gains on the Metropolitan Achievement Tests (MAT). In grade three, 15 of the pupils (30 per cent) made only one months gain or less for each month in the program, seven pupils (14 per cent) made a gain of from two to three months, five pupils (ten per cent) made gains of from four to five months, and 22 pupils (44 per cent) made gains from six to ten months or more. The third grade pupils made achievement gains; however, the accepted gain of one month for a month in the program was not made.

### Fifth Grade

For the fifth grade, the subtest of word knowledge and reading were examined. It was found that the fifth grade pupils began the school year slightly below grade level and they did not gain a month for a month's time in the program. In fact, the gains made by the fifth grade were less than those made in the two other grades.

In Table 3, according to the frequency analysis data of reading gains, 23 pupils (35 per cent) made a gain of one month or less, six pupils (nine per cent) gained from two to three months, nine pupils (14 per cent) gained from four to five months, and 28 pupils (43 per cent) gained from six to ten months or more.

In summary, concerning achievement on the Metropolitan Readiness Tests (MRT)and Metropolitan Achievement Tests (MAT), pupils in grades two through five did not meet Objective A of a month's gain in reading for each month during the program; however, it should be noted that the second grade did gain more than a month for each month in reading. Also, many individual pupils did made the desired gains.

### Objective B

Did the pupils in levels one through five show an increased interest in reading as shown on the Parent Survey? The Parent Survey which was conducted in May to determine whether or not the parents had seen any evidences of the reading program at home showed the following results:

1. My child reads to me.

Never - 3 Seldom - 41 Often - 71 Daily - 17 Total - 132

2. I read to my child.

Never - 1 Seldom - 54 Often - 71 Daily - 6 Total - 132

3. I buy reading materials for my child.

Never - 0 Seldom - 20 Often - 111 Total - 131

4. My child asks me to read to him/her.

Yes - 97 No - 33 Total - 130

5. I take my child to the library.

Yes - 67 No - 65 Total - 132

6. My child has a library card.

Yes - 63 No - 65 Total - 128

7. My child looks at educational programs on T.V.

Yes - 109 No - 10 Total - 119

If yes, name two (2).

The 10 most frequently named were:

1. Seasame Street - 68
2. Electric Company - 45
3. Curiosity Shop - 12
4. Mr. Wizard - 9
5. Mr. Rogers - 9
6. Scheduled Specials - 6
7. You Are There - 6
8. Zoom - 5
9. Untamed World - 4
10. Captain Kangaroo - 4

8. My child looks at the news.

Yes - 109 No - 27 Total - 127

9. I have the following resource materials in my home:

Magazines - 123
Newspapers - 128
Encyclopedia - 117
Atlas - 57
Other - 75

10. I have the following magazines in my home:

The 10 most frequently named were:

1. Ebony - 75
2. Life - 46
3. Readers Digest - 28
4. Time - 26
5. Look - 21
6. Ladies Home Journal - 21
7. Better Homes and Gardens - 20
8. Good Housekeeping - 19
9. McCall - 18
10. Jet - 16

There were 75 different magazines named.

11. Do you sit down with your child and help him/her with school work?

| | | |
|---|---|---|
| Yes - 111 | No - 5 | Total - 116 |

12. Does your child appear interested in reading?

| | | |
|---|---|---|
| Yes - 115 | No - 12 | Total - 127 |

13. Has your child appeared more interested in reading within the last six (6) months?

| | | |
|---|---|---|
| Yes - 86 | No - 33 | Total - 119 |

14. How much independent reading does your child do per week? (Estimate in terms of hours.)

0 - 1
up to 1 - 10
½ to 3 - 33
3½ to 5 - 23
5½ up - 36

Total of 103 responses

15. My child is able to transfer reading learning experiences from school. Example: reading billboards, labels in grocery store, printed programs, etc.

Yes - 121 No - 3 Total - 124

16. I would like to have a suggested summer reading list.

Yes - 112 No - 14 Total - 126

There were notes of positiveness by the respondents. For example, to statement Number 15 "My child is able to transfer reading learning experiences from school," one hundred twenty-one parents indicated that the statement was true; therefore, implying that the second objective was met.

Objective C

Did the parents in levels one through five show their interest in the pupils' instructional program by returning the Parent Survey on effects of the reading program?

Since three hundred eleven surveys were sent home and only one hundred thirty-two were returned, this means that more than one-half of the parents did not respond to the survey so Objective C was only partially met.

Objective D

Was there a positive attitude towards school and self-concept as measured by the School Sentiment Index (SSI) and the Self-Appraisal Inventory (SAI)?

According to the School Sentiment Index (SSI) the six dimensions of the learner's attitude toward schooling are:

1. Teachers, i.e., one's subjective feelings about teacher behavior with respect to instruction, authority and control, and interpersonal relationships with pupils;

2. School Subjects, i.e., one's differential attitudes toward various commonly-taught school subjects;

3. Learning i.e., one's attitude toward the learning experience, independent of attitude toward school, teachers and subjects, as reflected in intellectual curiosity, willingness to study, interest in problem solving, etc.;

4. School Social Structure and Climate, i.e., one's attitude toward his school as a social center, a rule making and rule enforcing entity, and an extra-curriculum opportunity system;

5. Peer, i.e., one's feelings regarding the structure of, and climate of relationships within the peer group;

6. General, i.e., one's general orientation toward schooling, independent of a particular school.

The results of the primary level of the SSI for grades one through three for Peyton Forest were as follows:

| | N | Teacher | Peer | School Subjects | General | School Climate | School Total |
|---|---|---|---|---|---|---|---|
| Peyton Forest | 60 | .57 | .63 | .77 | .59 | .58 | .63 |

The intermediate level of the SSI was administered in grades four and five. The results were as follows:

| | N | Teacher | Peer | Learnings | General | School Climate | School Total |
|---|---|---|---|---|---|---|---|
| Peyton Forest | 40 | .52 | .62 | .52 | .41 | .45 | .50 |

On the SSI the maximum response was 100 per cent. From the results it can be seen that grades one through three had a much more positive response on attitude toward school subjects, general orientation toward schooling and attitude toward school as a social center than did the pupils in grades four through seven.

According to the School Appraisal Inventory (SAI) the difference dimensions of the learner's self-concept are:

1. Family, i.e., one's self-esteem yielded from family interactions;
2. Peer, i.e., one's self-esteem associated with peer relations;
3. Scholastic, i.e., one's self-esteem derived from success or failure in scholastic endeavors; and
4. General, i.e., a comprehensive estimate of how the self is esteemed.

The results of the scores denoting the percentage of favorable responses for the primary level of the SAI for grades one through three were as follows:

| | N | Peer | Family | School | General | School Total |
|---|---|---|---|---|---|---|
| Peyton Forest | 60 | .63 | .61 | .69 | .79 | .68 |

The intermediate level of the SAI was administered in grades four and five. The results were as follows:

| | N | Peer | Family | School | General | School Total |
|---|---|---|---|---|---|---|
| Peyton Forest | 40 | .65 | .66 | .63 | .64 | .65 |

Since the maximum response was 100 per cent, from the results it can be seen that the pupils in grades one through three had a rather high score on how the self is esteemed. The next highest score was on self-esteem derived from success or failure in scholastic endeavors. In contrast, grades four and five scored highest on self-esteem from family interactions. All the other scores were similar.

Although the results do not prove whether or not Objective D was met for this year, the results will be used for comparison with next year's data.

Since the faculty at Peyton Forest was emphasizing the improvement of the instructional program in levels one through five, major findings for these levels are included in this report. However, the principal and faculty were working towards a better instructional program for the children in all grades. Table 4 shows the reading performance of each grade (one through seven).

The data show that the first grade pupils who began with a pretest score of B were good prospects for success in first grade. The posttest mean score was 2.5 which indicates that the pupils made much outstanding progress. The second grade made slightly more than a six month gain (105 per cent of the expected gain). This posttest score was approximately the same as that of the first grade, however, it should be noted that the second grade gained approximately seven months, or more than a month for each month in the program between pretest and posttest. The third grade made a gain of four months (59 per cent of the expected gain). The fourth grade was not tested on the Metropolitan Achievement Tests. The fifth grade made a gain of four months (59 per cent of the expected gain); the sixth grade made a gain of slightly over five months (93 per cent of the expected gain); and the seventh grade gained almost four months (63 per cent of the expected gain). Also, the gains in grades two through seven were significant at the .01 level.

### TABLE 4

### COMPARISON OF MEAN READING PRETEST/POSTTEST SCORES, GAIN, PER CENT OF EXPECTED GAIN, AND GAIN SCORE t TEST

| Grade | No. | Mean Score Pretest | Mean Score Posttest | Gain | Per Cent of Expected Gain | t Test |
|---|---|---|---|---|---|---|
| 1 | 25 | B | 2.5 | - | - | - |
| 2 | 47 | 1.98 | 2.63 | 0.65 | 1.05 | 6.49** |
| 3 | 49 | 3.04 | 3.41 | 0.37 | 0.59 | 2.64** |
| 5 | 68 | 4.86 | 5.23 | 0.37 | 0.59 | 2.55** |
| 6 | 43 | 5.51 | 6.09 | 0.58 | 0.93 | 3.40** |
| 7 | 44 | 6.57 | 6.96 | 0.39 | 0.63 | 2.94** |

**Significant at the .01 level.

The Division of Research and Development conducted a study of effectiveness and acceptability of the reading program in 1970-71 and the reading and arithmetic program in 1971-72. The findings for 1970-71 for each elementary school were printed in a publication entitled, Effective? Acceptable?

The data for Peyton Forest, taken from the study, are shown in Table 5.

The results show the actual and predicted gains, the gain rate of effectiveness, and acceptability over a two-year period in reading.

The gain rate of effectiveness and level of acceptability were based on the following six factors which influence pupil achievement: entry knowledge of pupils, economic level of families, attendance of pupils, class size, stability of school enrollment, and extent of pupil failure.

The predicted gain for each grade was the expected gain of six months (or more) between the pretest and posttest except in the sixth grade. In other words, after considering the six influencing factors present in the school, the pupils were generally expected to gain a month or more for each month of instruction. Therefore, the results are similar to those already presented.

In considering the gain rate of effectiveness over the two year period, it can be seen that there was an increase in effectiveness during the 1971-72 school year for grades two, four, five, six, and seven. However, the reason for no improvement in grade three should be investigated, and since the program is neither effectiive nor acceptable, the principal and staff should analyze the difficulties which have influenced the program and develop prcedures which will capitalize on the strengths within the school. Hopefully, then, the program will become more effective and acceptable.

In addition to the evaluation of the program which was done by the research assistant, the lead teacher requested that the teachers evaluate the year's program. The following statements represent the strengths and weaknesses that were noted by the team members:

Strengths

A. Materials were prepared by the aides well in advance of the time that they were needed.

B. It has been beneficial to the pupils for the teacher and/or aide to work with smaller groups.

TABLE 5

LONGITUDIONAL PROFILE OF EFFECTIVENESS AND ACCEPTABILITY OF THE READING PROGRAM*, 1970-71 AND 1971-72

| Grade | Actual | | Acceptable | Predicted | Gain | | Gain Rate of Effectiveness | | Index of Acceptability | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Pretest | Posttest | Posttest | Posttest | Actual | Predicted | 1971-72 | 1970-71 | 1971-72 | 1970-71 |
| 2 | 1.9 | 2.5 | 2.7 | 2.7 | 0.6 | 0.8 | 75 | 67 | 93 | 89 |
| 3 | 2.8 | 3.1 | 3.7 | 3.4 | 0.3 | 0.6 | 50 | 50 | 84 | 86 |
| 4 | 2.9 | 4.1 | 4.7 | 4.2 | 1.2 | 1.3 | 92 | 87 | 87 | 87 |
| 5 | 4.4 | 4.8 | 5.7 | 5.1 | 0.4 | 0.7 | 57 | -29 | 84 | 77 |
| 6 | 5.0 | 5.4 | 6.7 | 5.5 | 0.4 | 0.5 | 80 | 67 | 81 | 93 |
| 7 | 6.5 | 7.0 | 7.7 | 7.1 | 0.5 | 0.6 | 83 | 25 | 91 | 70 |
| | | | | | | Average | 73 | 45 | 87 | 84 |

*The interval between pretest and posttest was October, 1971, to April, 1972 for all grades except the fourth. For grade four the interval between pretest and posttest was from April, 1971, to April, 1972.

C. Pupils with special reading difficulties have been assisted on an individual or small group basis.

D. More efficient use of the pupils' time has resulted due to extensive planning and assistance of the aides.

E. Reading skills were improved as a result of repetitious activities by teachers and/or aides.

F. The teachers and aides have provided a wide variety of materials.

G. Evaluation and comparison of pupils' work has been made possible because of additional planning time for the teachers.

H. Assistance of aides provided additional time for oral reading and discussions of books and other reading materials.

I. Increased use of audio-visual equipment has been made possible because of the aides' assistance.

J. Pupils have been able to work at their individual rates of speed.

K. With the assistance of the aides, the results of pupils' success in a skill or project was revealed to the pupils more rapidly.

## Weaknesses

A. There was no time for planning between the aide and the classroom teacher.

B. Distribution of the three aides, for eleven classes, was unbalanced according to strengths and weaknesses of reading groups.

C. Initially, the classroom teachers were uncertain as to the most effective way to use their planning time, and they had to go through a "growth period" before this time was systematically planned by the group.

D. Teacher evaluation of this type should be utilized frequently during the year.

## X. COST EFFECTIVENESS

In order to determine the cost for the amount of achievement gain in each grade a cost analysis of reading gains was made. The data in Table 6 show the total school average daily attendance (ADA), the ADA by grade, and the ADA for the pretest/posttest population for which gains were computed.

The expenditures have been separated into sections entitled (1) general funds (salary and non-salary) and (2) compensatory funds (salary and non-salary). The cost for food services, new equipment, or capital outlay is not included. The figures were computed from the June 30, 1971, Trust and Agency Report. Included also, in the cost in compensatory funds is the cost for each unit of effectiveness as determined in the Effectiveness, Acceptability Study, 1972. The figure pertaining to per pupil cost are broad estimates and are not exact or finite.

In allocating general funds for salaries and non-salaries, the per cent of each grade's pretest/posttest ADA of the total population was considered. The funds for non-salary include the cost for materials and supplies and replacement and/or repair of old equipment.

According to these data, there was no relation between the amount of funds spent and the cost for a one-grade-unit of gain. In the second grades in which the pupils gained more than a month for each month in the program, the cost for a unit of gain was less than in the other four grades.

There, also, appeared to be no relation between the amount of compensatory funds spent and the effectiveness of the reading program. The cost per unit of effectiveness was similar in each of the grades. The small range was from $0.11 in the fourth grade to $0.19 in the third grade. (See Table 6, pages 30 and 31.)

## XI. CONCLUSIONS

From the data collected on Peyton Forest, there were indications of the following:

A. The kindergarten, first, and second grade pupils received excellent preparation for successive grades.

B. Only the second grade met the objective of gaining one month for each month of instruction in reading.

C. Responses from the Parent Survey indicated that there was interest by parents in their children's instructional program.

D. There were indications that the parents believed that the reading program, reinforced by the Instructional Assistance Program (IAP), had benefited the pupils.

E. According to the evaluation of the reading program by the teachers, there were more than twice as many strengths as weaknesses.

F. The gain rate of effectiveness in reading was greater for the 1971-72 school year than for the 1970-71 school year, but the effectiveness index remains rather far below the predicated index.

G. Seemingly, the Instructional Assistance Program (IAP) has greatly enhanced the total instructional program by providing a lead teacher and three aides who have (1) released the classroom teachers for planning time, (2) assisted the teachers with instructional activities and the preparation of materials, and (3) provided enrichment activities in art, music, and physical education for the pupils.

TABLE 6

## COST ANALYSIS OF READING GAINS
## TOTAL SCHOOL AVERAGE DAILY ATTENDANCE (ADA)
K - 7 = 427

| | Grades | | | | | | |
|---|---|---|---|---|---|---|---|
| | Second | Third | Fourth | Fifth | Sixth | Seventh | Average |
| ADA for Grade | 57 | 60 | 59 | 71 | 44 | 46 | 56 |
| Per Pupil Cost | | | | | | | |
| A. General Funds | | | | | | | |
| 1. Regular | | | | | | | |
| a. Salary | $618.36 | $ 618.36 | $618.36 | $ 618.36 | $618.36 | $ 618.36 | $618.36 |
| b. Non-Salary | 91.91 | 91.91 | 91.91 | 91.91 | 91.91 | 91.91 | 91.91 |
| c. Total | $710.27 | $ 710.27 | $710.27 | $ 710.27 | $710.27 | $ 710.27 | $710.27 |
| 2. Comprehensive Instructional Program (CIP) | | | | | | | |
| a. Salary | $ .10 | $ .10 | $ .10 | $ .10 | $ .10 | $ .10 | $ .10 |
| b. Non-Salary | 1.16 | 1.16 | 1.16 | 1.16 | 1.16 | 1.16 | 1.16 |
| c. Total | $ 1.26 | $ 1.26 | $ 1.26 | $ 1.26 | $ 1.26 | $ 1.26 | $ 1.26 |
| 3. Total General Funds | | | | | | | |
| a. Salary | $618.46 | $ 618.46 | $618.46 | $ 618.46 | $618.46 | $ 618.46 | $618.46 |
| b. Non-Salary | 93.07 | 93.07 | 93.07 | 93.07 | 93.07 | 93.07 | 93.07 |
| c. Total | $711.53 | $ 711.53 | $711.53 | $ 711.53 | $711.53 | $ 711.53 | $711.53 |
| B. Compensatory Funds | | | | | | | |
| 1. Emergency School Assistance Program (ESAP) | | | | | | | |
| a. Salary | $ .79 | $ .79 | $ .79 | $ .79 | $ .79 | $ .79 | $ .79 |
| b. Non-Salary | 5.93 | 5.93 | 5.93 | 5.93 | 5.93 | 5.93 | 5.93 |
| c. Total | $ 6.72 | $ 6.72 | $ 6.72 | $ 6.72 | $ 6.72 | $ 6.72 | $ 6.72 |
| 2. Education Professional Developmental Act (EPDA) | | | | | | | |
| Non-Salary | $ .13 | $ .13 | $ .13 | $ .13 | $ .13 | $ .13 | $ .13 |

TABLE 6 (cont'd)

| | Grades | | | | | | |
|---|---|---|---|---|---|---|---|
| | Second | Third | Fourth | Fifth | Sixth | Seventh | Average |
| 3. Career Opportunities Program (COP) Salary | $ 2.81 | $ 2.81 | $ 2.81 | $ 2.81 | $ 2.81 | $ 2.81 | $ 2.81 |
| 4. Total Compensatory Funds | | | | | | | |
| a. Salary | $ 3.60 | $ 3.60 | $ 3.60 | $ 3.60 | $ 3.60 | $ 3.60 | $ 3.60 |
| b. Non-Salary | 6.06 | $ 6.06 | 6.06 | 6.06 | 6.06 | 6.06 | 6.06 |
| c. Total | $ 9.66 | $ 9.66 | $ 9.66 | $ 9.66 | $ 9.66 | $ 9.66 | $ 9.66 |
| C. Total Per Pupil Cost | | | | | | | |
| 1. General Funds | $711.53 | $ 711.53 | $711.53 | $ 711.53 | $711.53 | $ 711.53 | $711.53 |
| 2. Comprensatory Funds | 9.66 | 9.66 | 9.66 | 9.66 | 9.66 | 9.66 | 9.66 |
| 3. Total Per Pupil Cost | $721.19 | $ 721.19 | $721.19 | $ 721.19 | $721.19 | $ 721.19 | $721.19 |
| D. Rate of Reading Gain (For Pretest/Posttest Population) | 1.05 | 0.59 | | 0.59 | 0.93 | 0.63 | 0.74 |
| E. Projected Cost For One-Grade-Unit Gain | | | | | | | |
| 1. General Funds | $677.65 | $1,205.98 | | $1,205.98 | $765.09 | $1,129.41 | $961.53 |
| 2. Compensatory Funds | 9.20 | 16.37 | | 16.37 | 10.39 | 15.33 | 13.05 |
| 3. Total Projected Cost For One-Grade-Unit Gain | $686.85 | $1,222.35 | | $1,222.35 | $775.48 | $1,144.74 | $974.58 |
| F. Gain Rate of Effectiveness | 75 | 50 | 92 | 57 | 80 | 83 | 69 |
| G. Expenditure Per ADA of Compensatory Funds for Each Unit of Effectiveness | $ .13 | $ .19 | $ .11 | $ .17 | $ .12 | $ .12 | $ .15 |

## XII. RECOMMENDATIONS

The following recommendations are based upon the content of this report and upon discussions between the school faculty and the research assistant:

A. An effort should be made to determine the reasons for the outstanding gains made by the second grade pupils.

B. The reasons for not having made substantial gains in all grades should be analyzed and appropriate remedial action should be taken.

C. Objectives should be formulated and a reading program for the 1972-73 school year should be implemented that would give the pupils a program that would be evaluated as both effective and acceptable.

D. If possible, there should be more parental involvement where the parents actually participate in activities within the school.

E. Since members of the Instructional Assistance Program have already worked together for one year, they should be prepared to give extensive and meaningful help to the teachers with the instructional program.

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RESEARCH AND DEVELOPMENT REPORT

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1971-72

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# I. RATIONALE

The W. J. Scott Elementary School, located in the northwest section of the city, served approximately 620 pupils in grades kindergarten through seven during the 1971-72 school year. These pupils were primarily members of low-income families and the majority of them resided in the nearby low-rent public housing development, Hollywood Courts, or in privately owned low-cost housing complexes, including Butler "Y" Village and Flipper Temple Apartments. These housing resources were relatively new as Hollywood Courts was completed late in 1969 and the Butler "Y" Village was completed in 1970. Less than ten per cent of the pupils resided in single family dwellings.

The pupil population at Scott Elementary School has been very mobile during the past several years. The completion of Hollywood Courts in 1969 attracted a large number of families with school age children from all areas of the city. The 1969-70 School Mobility Index was a very high .83, with the majority of children migrating into the school. This large influx of pupils necessitated the utilization of portable classrooms until the completion of the new addition to the school in January, 1971. Last year, 1970-71, records indicated that almost the same number of pupils migrated into the school as migrated out of it. Some of these moves were upward into more favorable neighborhoods or better housing situations, but most of the mobility was observed to have been of a horizontal nature. Although the school enrollment increased slightly, the enrollment of Caucasian pupils steadily declined. Throughout the year a maximum of 13 Caucasian pupils were enrolled at any one time in an otherwise all Black pupil population.

An estimated 59 per cent of the pupils enrolled in Scott Elementary School were members of families whose total income was $2,000 or less. These children displayed an obvious need for improvement in both their academic performance and their self-image. Thus, the school was classified as a Title I school and received supplementary funds and additional personnel through Title I grant allocations. In addition, instructional assistance was available through the local Comprehensive Instructional Program to assist the faculty in implementing their math and reading program.

Scott Elementary School was particularly interested in promoting a positive home-school relationship and sponsored an active parental involvement program. Parents and school personnel also worked together closely in proposing a plan to obtain funds allocated under Title IV-A for a family-oriented extended day program at the school.

The focus of the instructional program was centered primarily upon reading due to the outstanding needs in this area shown by pupils. Consequently, the faculty chose to carefully evaluate its reading program as it was implemented in the first, second, and third grades, a population comprised of both **self-contained** classrooms and **a non-graded** multi-level cluster team. This report will include an evaluation of the progress made toward achieving the specific objectives set forth by the school for **its** primary grades as well as a summary overview of the pupil progress made on all grade levels, including achievement data, gain rate of effectiveness and cost expended to achieve these gains.

## II. PUPIL NEEDS

The following personal and academic needs were identifed by the faculty through observation, testing, and parental and community involvement as characteristic needs of pupils at Scott Elementary School:

A. To acquire basic reading skills.

B. To develop basic communication skills which are necessary for successful academic experiences.

C. To broaden their cultural outlook and enhance academic achievement with enrichment experiences.

D. To build a more positive feeling about self-worth.

E. To have their parents become more cognizant of and involved in their school activities.

F. Improved diet and health care services.

G. To improve their school attendance habits.

## III. PROGRAM GOALS

The basic overall goal of Scott Elementary School for the 1971-72 school year was to increase the children's reading capabilities by providing a reading program which was directed toward the development of skills in word attack, vocabulary, and comprehension. This primary goal was supplemented by the following supporting goals:

A. To provide vicarious enrichment experiences for the children through movies, filmstrips, community resources, music and art.

B. To enhance positive feelings about self through successful learning experiences.

C. To strenthen home-school relations by providing the opportunity and guidance for parents to organize and implement their own parent involvement program.

D. To improve the overall percentage of attendance for the total pupil population.

## IV. BEHAVIORAL OBJECTIVES

The following objectives were established to guide the school's program activities for the year and to serve as a basis for evaluating pupil progress and program implementation.

A. Of the pupils enrolled in the first grade, 90 per cent will successfully complete, with 80 per cent accuracy, Comprehensive Instructional Program (CIP) diagnostic reading tests A-1 through B-4, during the time span between the beginning of the school year and the administration of the third CIP test.

B. Of the pupils enrolled in the first grade, 10 per cent will successfully complete, with 80 per cent accuracy, all CIP diagnostic reading tests through C-2, as measured by the results of the third CIP test.

C. Of the pupils enrolled in the second and third grades, 75 per cent will increase their reading skills in vocabulary, word attack, and comprehension, gaining at least 5 months in their total reading scores on the Metropolitan Achievement Tests (MAT) between the pretest and posttest, an instructional period of 6 months.

D. Of the pupils enrolled in the second and third grades, 50 per cent will increase their reading skills at the rate of at least one month's gain for each month of instruction as measured by their pretest and posttest scores on the MAT.

E. During the year, the parent involvement group at Scott Elementary School will plan, sponsor, and coordinate at least one school-wide, family participation event of interest to all parents.

F. Pupils will increase last year's attendance average of 89 per cent (1970-71) by at least 2 per cent for the current year (1971-72).

The following objectives are specifically related to the Career Opportunities Program (COP):

G. Those pupils in the primary cluster taught by a COP team will show significantly greater annual gains in reading than similar pupils not taught by a COP team.

H. Those pupils in the primary cluster taught by a COP team will show significantly greater annual gains in reading than similar pupils not taught by a COP team.

I. Those pupils in the primary cluster taught by a COP team will show a more significant gain in self-concept as measured by the Self-Appraisal Inventory than will similar pupils taught in self-contained classrooms.

J. As a COP school, W. J. Scott Elementary School will have a more open organizational climate than will similiar schools that do not have a COP team.

## V. CRITICAL VARIABLES

The following critical variables were identified as areas in which the school proposed to make definite changes:

A. Reading Skills (first grade).

1. Auditory discrimination
2. Matching letters
3. Visual discrimination
4. Alphabet skills
5. Sight vocabulary
6. Phonetical skills.

B. **Reading Skills** (second and third grades).

1. Vocabulary skills

2. Word attack skills

3. Comprehension skills.

C. Parental Involvement.

D. Attendance.

E. Self-Concept.

F. School Climate.

## VI. SUPPORTIVE PROJECTS

There were several supportive projects within W. J. Scott Elementary School that provided supplementary personnel, services, or funds above and beyond those supplied through the regular school program. These supportive projects had specified program-wide objectives, directly related to pupil needs, which became the school's objectives when the program was implemented in the school. A brief description of the supportive projects as they were implemented follows:

A. Title I Program

Title I provided the following personnel and compensatory services: (1) a counselor-lead teacher, (2) a part-time social worker, (3) five educational aides, and (4) limited funds for materials and supplies.

1. Counselor-Lead Teacher -- The counselor-lead teacher position was new to the Title I program this year. Those counselors assuming this role were involved in a weekly inservice workshop, concentrating on defining their new role and responsibilities in the program. Throughout the year, the counselor-lead teacher at Scott assumed the following duties:

    a. Served in an overall consultant capacity for teachers, parents, and pupils in the areas of guidance and counseling and curriculum.

b. Coordinated and supervised the standardized testing program within the school, interpreting data feedback to the teachers; administered individual reading inventories to all new pupils or referred pupils having academic difficulties; and screened all pupils referred for psychological testing.

c. Coordinated all health program activities in the school, including the physical examinations for the kindergarten children, immunizations, and hearing and vision screenings for all grade levels, working closely with the public health nurse.

d. Worked closely with the social worker, particularly in the area of pupil attendance problems and parental involvement activities, and with area personnel in the area of curriculum improvement and assisting teachers in program implementation.

e. Provided inservice training for the educational aides, both individually and as a group.

f. Served as the school liaison with the Economic Opportunity Atlanta (EOA) Northwest Coordinating Council and worked cooperatively with the public housing social service workers and the welfare caseworkers whenever appropriate.

g. Compiled confidential pupil records, including free lunch authorization.

h. Served in an advisory capacity with the student council, the pupil aides in the office, the pupil library aides, and the pupil photographer.

2. Social Worker -- The social worker was assigned to Scott only two days a week. The primary function of the social worker was serving as liaison between the home, the school, and the community with particular emphasis directed toward improving pupil attendance and promoting increased parental involvement. The additional responsibilities assumed included:

a. Handled all referrals from teachers including attendance, economic, health, and behavior problems either providing direct service to those children and their families or referring them to appropriate community agencies and then assisting the families to follow through with these referrals.

b. Obtained home background information to assist the school to better understand the child or the family whenever appropriate.

c. Cooperated closely with all local community agencies.

d. Served in an advisory and often catalytic capacity with the parent involvement group.

3. Educational Aides -- Five educational aides were assigned to work with teachers as members of the instructional team. One aide was included in the primary cluster team and two aides were assigned exclusively to the kindergarten team. The remaining aides were "floaters," each assisting seven teachers daily for time periods ranging from thirty minutes to one hour.

The aide assigned to the primary cluster team participated in the Career Opportunities Program (COP) and was enrolled part-time in college classes at Georgia State University. COP is a training program for selected paraprofessionals, leading toward professional certification. Tuition was provided for the trainees, allowing them to earn up to forty-five quarter hours of college credit during a period of twelve months. The trainees were required to work as members of an instructional team, performing instructional tasks and participating in planning activities.

All of the aides received regular inservice training through the counselor-lead teacher and kept an informal log of their activities. Some of their specific duties inlcuded:

a. Assisting with reading instruction, particularly working with those children having the greatest educational needs.

b. Assisting with small group instruction.

c. Working with individual pupils in special problem areas, under teacher guidance.

d. Working with pupil clubs and committees during meetings.

B. The Comprehensive Instructional Program (CIP)

The Comprehensive Instructional Program was a locally funded program, focusing on the area of reading in grades one through three and on the area of math in grades four through six. Through this program, pupils in the first three grades were diagnostically evaluated on their own level of proficiency in reading skills three times during the year, to aid individual teachers in prescriptive teaching. Primary teachers completed individual profile sheets for each child after results from the second testing period were received. Pupils in the fourth, fifth, and sixth grades were diagnostically evaluated in math during the fall.

Only one resource teacher was specifically assigned to CIP from the Area III office. Consequently, assistance was usually offered to the faculty through workshops in both math and reading given by the CIP resource teacher and other area personnel throughout the year. Three teachers, including a first grade teacher, a special education teacher, and an upper elementary teacher, attended the summer CIP inservice courses in reading. Limited funds were available to the school to be used for supplementary instructional supplies. Materials were purchased to be used in the third and fourth grades.

The city-wide goal of this program in all schools was one month's gain in reading scores in grades one through three for each month of instruction and one month's gain in math scores for each month of instruction in grades four through six.

## VII. MANAGEMENT AND CONTROL

### School Organization

The completion of the new addition to the school in January, 1971, has had implications for the instructional program since it was constructed incorporating the open classroom concept. Approximately one-third of the pupils enrolled in the school were housed in this building, grouped into two non-graded multi-level clusters. The Primary Cluster was staffed by a team of three teachers and one full-time educational aide and served approximately 108 children. The children were initially assigned to the cluster prior to the beginning of the 1971-72 school year according to their reading levels, but due to the high mobility rate of this population, the group was not as homogeneous as was anticipated. All second grade pupils were included in this cluster plus high-achieving first grade pupils and low-achieving third grade pupils.

The Upper Elementary Cluster, named Aquarius Land by the pupils, was staffed by a team of four teachers and an educational aide assigned to the cluster team for one hour daily. This team served 124 pupils from the fifth, sixth, and seventh grades, assigned similarly to those in the Primary Cluster. Cluster teachers had initially indicated a desire for this assignment. One teacher in each cluster was designated to act as the team leader, serving as liaison between the team and the administrative staff. Cluster planning time as a team was difficult to arrange since teachers had no free time at all during the school day. Planning had to be done once a week after school hours.

The remaining pupils were assigned to self-contained classrooms, including three first grades, two second grades, a combination third and fourth grade, two fourth grades, one fifth grade, and one seventh grade. Over 70 pupils were enrolled in either the morning or the afternoon kindergarten program. The instructional program also included classes for deaf children, multi-handicapped children, and educable mentally retarded children, as well as a special education resource teacher who worked with small groups of referred children who exhibited obvious learning disabilities, and a Communication Skills Laboratory (CSL) teacher who worked in a laboratory situation with those pupils who displayed difficulties in the area of communication skills. The regular academic program was supplemented by the parttime services of enrichment teachers in the areas of physical education, band, music, and speech.

Of the 18 regular classroom teachers on the faculty, 4 of them were new to the school. There were a few initial staffing problems. First, it was late in the fall before the educational aide who was to assist in the multi-handicapped children's classroom was assigned. Also, staffing problems involving the clerical-secretarial work in the office early in the year presented some organizational difficulties to the administration. There was no excessive absenteeism among the teachers throughout the year but one of the educational aides in the kindergarten was absent for approximately three months due to an illness. Since the kindergarten program involved two 3.5 hour sessions, approximately 75 children, and only one professional teacher, the absence of the aide was crucial even though unavoidable. It should be noted, though, that a volunteer parent often assisted in this classroom to help alleviate this problem.

Also, during the morning a high school senior who was enrolled in a child development course, assisted in the classroom as part of a work-study program. Since faculty meetings were generally devoted to planning sessions or inservice training, administrative information was usually shared with the faculty through newsletters or written notices which were to be kept on file by each teacher in a reference handbook, received in the beginning of the school year.

## Inservice Training

Several inservice workshops or meetings were held with the faculty by the Area III resource staff throughout the year, covering areas such as science, language arts, art, and special education. Two psychometrists held group interaction sessions with the faculty. Also, a professor from Georgia State University held two sessions with the faculty on behavior management. Other faculty meetings were devoted to grade level meetings and planning sessions. At times the faculty conducted its own inservice meetings, sharing classroom experiences or ideas on behavior modification or individualization. Teachers felt free to call upon the services of the area resource personnel frequently.

## Organizational Climate

Organizational climate has been used to describe the "personality" of an environment. A study of the organizational climate of a school may provide insight into possible characteristics of the environment operating within that school's organizational structure.

In an effort to obtain data relative to the school climate as perceived by the teachers, a randomly selected sample of teachers in 26 Title I elementary schools, including Scott School, was requested in April to complete anonymously, the Organizational Climate Index (OCI), an instrument developed by George Stern of Syracuse University. The OCI is comprised of 300 true or false items which, when compiled, provide data from the respondents on the 30 scales defined below. Analysis of these data produces six OCI factors which are called first-order factors. The initial five first-order factors, including intellectual climate, achievement standards, practicalness, supportiveness, and orderliness, describe a second-order factor called development press, which is the capacity of the organizational environment to support, satisfy, or reward self-actualizing behavior. The remaining first-order factor, impulse control, describes another second-order factor called control press, which refers to those characteristics of the environment which inhibit or restrict personal expressiveness.

The OCI was not administered as a test or a criterion measure in the judgemental or evaluative sense. Rather, its intent was to provide feedback on the school climate as a basis for analysis and discussion byt he school faculty and to provide baseline data for a longitudinal study, examining fluctuations and determining if there is any relationship between school climate and pupil achievement.

## DEFINITIONS OF SCALES FROM WHICH DEVELOPMENT PRESS AND CONTROL PRESS ARE DERIVED IN THE ORGANIZATIONAL CLIMATE INDEX

1. Abasement-assurance: self-deprecation versus self-confidence.
2. Achievement: striving for success through personal effort.
3. Adaptability-defensiveness: acceptance of criticism versus resistance to suggestion.
4. Affiliation-rejection: friendliness versus unfriendliness.
5. Aggression-blame avoidance: hostility versus disorganization.
6. Change-sameness: flexibility versus routine.
7. Conjunctivity-disjunctivity: planfulness versus organization.
8. Counteraction-inferiority avoidance: restriving after failure versus withdrawal.
9. Deference-restiveness: respect for authority versus rebelliousness.
10. Dominance-tolerance: ascendance versus forbearance.
11. Ego achievement: striving for power through social action.
12. Emotionality-placidity: effort versus restraint.
13. Energy-passivity: effort versus inertia.
14. Exhibitionism-inferiority avoidance: attention-seeking versus shyness.
15. Fantasied achievement: daydreams of extraordinary public recognition.
16. Harm avoidance-risk-taking: fearfulness versus thrill seeking.
17. Humanities-social sciences: interests in the humanities and the social sciences.
18. Impulsiveness-deliberation: impetuosity versus reflection.
19. Narcissism: vanity.
20. Nuturance-rejection: helping others versus indifference.
21. Objectivity-projectivity: detachment versus superstition (AI) or suspicion (EI).
22. Order-disorder: compulsive organization of details versus carelessness.
23. Play-work: pleasure-seeking versus purposefulness.
24. Practicalness-impracticalness: interest in practical activities versus indifference.
25. Reflectiveness: introspective contemplation.
26. Science: interest in the natural sciences.
27. Sensuality-puritanism: interest in sensory and aesthetic experiences.
28. Sexuality-prudishness: heterosexual interests versus inhibitions of heterosexual interests.
29. Supplication-autonomy: dependency versus self-reliance.
30. Understanding: intellectuality.

The following are the six first-order factors and their definitions:

A. Development Press

1. Intellectual climate -- This factor describes a concern with intellectual activity, social action, and personal effectiveness It is based on the scales for humanities, social science, science, exhibitionism, and change. A school that scores high on this factor is one in which there is a high degree of intellectuality, heterosexual interests, flexibility, and attention seeking.

2. Achievement standards -- This is the factor reflecting press for achievement. Schools high on this factor stress hard work, perseverance, and a total day-by-day commitment to institutional purposes. It is defined by counteraction, energy, achievement, emotionality, and ego achievement.

3. Practicalness -- This factor suggests an environmental dimension of practicality tempered with friendliness. It is defined by practicalness and nurturance. A school that scores high on this factor is one in which the teachers feel there is a high interest in practical activity and a desire for helping others.

4. Supportiveness -- This factor deals with aspects of the organizational environment that respect the integrity of the teacher as a person, but the implication is that dependency needs must be supported rather than personal autonomy emphasized. It might be considered a measure of democratic paternalism. The scales defining it are assurance, tolerance, objectivity, affiliation, blame avoidance, conjunctivity, supplication, harm avoidance, and nurturance. A school that scores high on this factor is one in which the teachers feel a high degree of self-confidence, friendliness, and planfulness.

5. Orderliness -- The components of this factor are concerned with the press for organizational structure, procedure, orderliness, and a respect for authority. Conformity to community pressures and an effort to maintain a proper institutional image probably are also concomitants of a high score on this factor. It is based on order, narcissism, adaptability, conjunctivity, deference, and harm avoidance. A school that scores high on this factor is one in which the teachers feel there is a compulsive organization of details, acceptance of criticism, respect for authority, vanity, and planfullness.

### B. Control Press

In addition to the reflection of factors 1 and 2 under "development press," control press involved:

Impulse control -- This factor implies a high level of constraint and organizational restrictiveness. There is little opportunity for personal expression or for any form of impulsive behavior. It is based on the following scales: work versus play; prudishness versus sexuality; aggression versus blame avoidance; impulsiveness versus deliberation; emotionality versus placidity, and exhibitionism versus inferiority avoidance. Before conversion, a low score would indicate an open climate on this factor. A school that scores high on this factor, after score conversion, is one in which the teachers feel there is a high degree of purposefulness, heterosexual interests, hostility as opposed to disorganization, impetuosity as opposed to reflection, expressiveness, and restriving after failure.

## VIII. PROCESS

In addition to the supporting services and personnel of the projects previously discussed, examples of the types of activities that were implemented in order to meet pupil needs and achieve the school goals and behavioral objectives included the following:

### A. Instructional

1. The new Scott, Foresman System, complete with all supplementary materials, was used as the basic reading program in all first-grade classrooms. The Open Highway Series, the Sullivan Reading Program, the American Book Company Basal Series and a language experience approach were utilized in the second and third grades and the Primary Cluster. These reading approaches were supplemented with games, flash cards, experience charts, and available audio-visual equipment, including language masters, filmstrip previews, Magnaboards, the Talking Alphabet, and record players and tape recorders with the accompanying earphones. Sesame Street was viewed on television in the lower primary grades and Electric Company was viewed by the other children. Diagnostic evaluation of the pupils was continuous, implementing CIP test data feedback, teacher-made assessment instruments, and diagnostic tests accompanying the individual reading program.

2. Within the Primary Cluster, the children were homogeneously grouped according to their ability in reading and regrouped according to their ability in math. This grouping was accomplished through diagnostic testing in the beginning of the year and changes were made throughout the year when appropriate. Each of the three teachers and the COP educational aide pursued reading and language arts activities for approximately two hours each morning. In the afternoon, each teacher assumed responsibility for one subject area, either science, math, or social studies, and the educational aide assumed responsibility for art work or other enrichment activities. Every Friday afternoon the entire cluster engaged in group-oriented cultural enrichment activities planned by the team, such as selected films or visits from community helpers.

3. Those pupils in the second through the fifth grades who had a history of academic failure or showed inattentive, disorganized behavior were referred for psychological testing. After testing, it was sometimes recommended that these pupils did not need to be placed in a self-contained educationable mentally retarded classroom but would benefit from extra assistance in small groups in the reading resource room while continuing to function as members of the regular classroom. The special education resource teacher worked with three groups, each group containing seven to eleven children with learning difficulties from the Primary Cluster and the third, fourth, and fifth grades, for approximately 90 minutes daily. Instruction was individualized for each child and basic skills were taught, but primary emphasis was placed on the child's own self-concept.

4. Those pupils in the fifth, sixth, and seventh grades who were at least two or three grades below their actual grade level as indiciated by Metropolitan Achievement Tests reading scores, were referred to the Communications Skills Laboratory (CSL) program, which utilized a multi-media approach to learning communications skills. This laboratory was equipped using Emergency School Assistance Program (ESAP) funds obtained the previous year. The CSL teacher worked with four groups of 15 to 19 pupils for approximately 50 minutes daily. Equipment such as the overhead projector, the Hoffman Reader, lanuage masters and the tape recorder was used to individualize reading instruction for these pupils. Basic skills in the area of communications were also developed utilizing series such as "Specific Skills," the "Reader's Digest

Skills," and "Think and Do." Pupil assignment to this program was fluid and pupil enrollment changed throughout the year.

B. Parental Involvement

1. In the Spring of 1971, a parent involvement group had been organized as one component of the ESAP program. The most outstandingly successful family-school activity held that year was a Family Supper. Meat was purchased through ESAP funds and the families contributed the remaining dishes. The parents themselves indicated a desire to repeat this activity. This parent group reorganized during the 1971-72 school year, assisted by the social worker and counselor-lead teacher who both served in an advisory capacity with the group. The group met together every other Thursday in the early afternoon. They elected their own telephone chairmen to inform all the parents of the meetings and kept their own minutes. Although the sessions were informal and relaxed, the social worker initially had to sometimes assist them with their planning and stimulate their discussions, but by the end of the year, they were able to make and follow through with their own plans. In addition to their planning sessions, they had speakers at their meetings who discussed MARTA, drug abuse, and facilities available at the health center as well as demonstrations on cooking and laundry hints, and ideas for making Christmas decorations. In the spring, they independently planned, organized, and executed another successful school-wide family covered-dish supper.

2. In order to assure parent-teacher conferences at the parent's convenience, teachers remained at the school on a designated day at the end of each reporting period until 7:30 p.m. Parents were notified in advance that they must come to the school in person to pick up their child's report card at this time or make any other arrangements that would be convenient for them. In spite of these efforts, some of the parents never came to the school to meet with their child's teacher.

3. Parents were invited to volunteer as much time as possible to assist teachers in the classrooms, in the cafeteria, on class trips, or in the school health program. Certain parents did respond to these requests and volunteered their time and services, even if only on a limited basis.

In May, 1972, an "Appreciation Day" coffee was held for all of the parents who had volunteered their services to the school during the year. Invitations were sent to 47 parents in appreciation for their support and assistance.

C. Attendance

1. Home visits or phone calls were made whenever an absent child was referred to the social worker by a teacher. Chronic attendance cases were automatically followed up whenever the child's name appeared on the attendance sheet, even if not referred. After the parents had been visited twice for an attendance problem, a letter was sent to the home, expressing the concerns of the school for the child and the magnitude of the attendance problem. Cooperating welfare workers and EOA workers were also notified of problems with chronic absentees whenever appropriate.

## IX. EVALUATION INSTRUMENTS

The following tests and instruments were used to evaluate the progress of the pupils at Scott Elementary School:

A. The Basecheck, a locally devised checklist of readiness skills, was administered individually to the kindergarten pupils late in the Spring, 1972.

B. The Comprehensive Instructional Program (CIP) diagnostic reading tests were administered to the first three grades three times throughout the year according to the pupil's levels of proficiency. The third test was administered in May, 1972.

C. The Metropolitan Achievement Tests (MAT) were administered to pupils in the second, third, fifth, sixth, and seventh grades in October, 1971 and to pupils in the first through the seventh grades in April, 1972.

D. The Self-Appraisal Inventory (SAI), an instrument designed to assess the pupil's self-concept along the following four dimensions: (1) general, (2) family, (3) peer, and (4) scholastic, was administered to those pupils in the Primary Cluster who were identified as having the most pronounced educational needs and who were directly assisted by the COP educational aide.

## X. FINDINGS

Evaluation of the program at W. J. Scott Elementary School included the measurement of performance on behavioral objectives for primary pupils and a summary of pupil achievement in reading for all grade levels. This summary included analysis of standardized reading scores in terms of attendance, mobility, predicted performance and national norms.

### Evaluation of Behavioral Objectives

A. Of the pupils enrolled in the first grade, 90 per cent will successfully complete, with 80 per cent accuracy, Comprehensive Instructional Program (CIP) diagnostic reading tests A-1 through B-4, during the time span between the beginning of the school year and the administration of the third CIP test.

B. Of the pupils enrolled in the first grade, 10 per cent will successfully complete, with 80 per cent accuracy, all CIP diagnostic reading tests through C-2, as measured by the results of the third CIP test.

Based on the identified need for pupils to acquire basic reading skills, these two objectives aimed to fulfill the school's primary goal of providing a reading program which was directed toward the development of skills in word attack, vocabulary and comprehension.

Information regarding performance on the diagnostic tests for the first grade is included in Table 1. Objective A was met on Subtests A-3 and A-4, both of which concern matching letters. Objective B was met on Subtests C-1 and C-2, which test for understanding of phonics. According to this data, the first grade pupils exhibited their greatest strengths in the skill areas of matching letters, identification of the letters of the alphabet, and visual discrimination. A need for further concentration in the areas of auditory discriminiation and sight vocabulary seems indicated by these results.

### Table 1

### NUMBER OF PUPILS SCORING AT LEAST EIGHTY PER CENT ON COMPREHENSIVE INSTRUCTIONAL PROGRAM DIAGNOSTIC READING TESTS*

(FIRST GRADE -- N=80)

| Subtests | Skill | Pupils Scoring At Least 80 Per Cent<br>Number | <br>Per Cent |
|---|---|---|---|
| A-1 | Auditory Discrimination | 50 | 63 |
| A-2 | Auditory Discrimination | 48 | 60 |
| A-3 | Matching Letters | 73 | 91 |
| A-4 | Matching Letters | 72 | 90 |
| A-5 | Auditory Discrimination | 22 | 28 |
| A-6 | Auditory Discrimination | 44 | 55 |
| A-7 | Visual Discrimination | 63 | 79 |
| A-8 | Visual Discrimination | 62 | 78 |
| B-1 | Alphabet (Capital) | 71 | 89 |
| B-2 | Alphabet (Lower Case) | 64 | 80 |
| B-3 | Sight Vocabulary | 23 | 29 |
| B-4 | Sight Vocabulary | 19 | 24 |
| C-1 | Phonics | 46 | 58 |
| C-2 | Phonics | 45 | 57 |

*Third test administered in May, 1972.

C. Of the pupils enrolled in the second and third grades, 75 per cent will increase their reading skills in vocabulary, word attack, and comprehension, gaining at least 5 months in their total reading scores on the Metropolitan Achievement Tests (MAT) between the pretest and posttest, an instructional period of 6 months.

D. Of the pupils enrolled in the second and third grades, 50 per cent will increase their reading skills at the rate of at least one month's gain for each month of instruction as measured by their pretest and posttest scores on the MAT.

Also related to the pupils' need to acquire basic reading skills, these objectives utilized standardized measurements for pupils of grades two and three to determine reading achievement. Grade equivalent scores of the Metropolitan Achievement Tests measured gain in months between pre and post tests administered in October and April of the school year, an instructional period of six months.

Performance on the reading subtests described in Table 2 showed that pupils in grades two and three met neither of the objectives (C or D) set forth for them. Only in the second grade, on the Word Knowledge subtest, did the pupils as a group gain six months in a six-month interval. According to the reading subtests, the weakest area in the second grade was Reading Comprehension. Only 25 pupils, or 50 per cent of those who took both the pretest and posttest, made any gain at all in this area. On both the Word Knowledge and Word Analysis subtests, 86 per cent of the pupils exhibited some gain between the pretest and posttest. In the third grade, only 51 per cent (24 pupils) made any gains on the Word Analysis subtest, and 57 per cent (27 pupils) made gains on the Reading Comprehension subtest. The excessive number of pupils who made no gains in these basic skills warrants a closer examination of the reading program and the evaluation instruments that were used.

E. During the year, the parent involvement group at Scott Elementary School will plan, sponsor, and coordinate at least one school-wide family participation event of interest to all parents.

This objective related to pupils' need for parents to be more cognizant of and involved in their school activities. Scott School had set as its goal the strengthening of home-school relations by providing the opportunity and guidance for parents to organize and implement their own parent-involvement program.

In April, 1972, the parents sponsored a covered dish supper at the school. For more than a month prior to this evening they had formulated plans for this event, establishing committees, contacting various resources, and making group decisions. They planned the menu, sent invitations, decorated the cafeteria, served as hosts and hostesses, and presented their own entertainment. The central planning group provided the main course, and responsibility for the remaining dishes was allocated to individual classrooms. More than 100 adults and children participated in this school-community event.

## TABLE 2

## GAINS MADE ON METROPOLITAN ACHIEVEMENT TESTS BETWEEN PRETEST AND POSTTEST*

| Subtests | Negative to 0 | | 1 to 4 Months | | 5 Months or More | | 6 Months or More | | Mean Gain |
|---|---|---|---|---|---|---|---|---|---|
| | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | (In Months) |
| (SECOND GRADE) | | | | | | | | | |
| Word Knowledge | 7 | 14 | 25 | 49 | 19 | 37 | 15 | 29 | 6 |
| Word Analysis | 7 | 14 | 31 | 61 | 13 | 25 | 10 | 17 | 3 |
| Reading | 25 | 50 | 16 | 32 | 29 | 18 | 9 | 18 | 1 |
| Total Reading | 13 | 25 | 28 | 55 | 11 | 21 | 8 | 15 | 2 |
| (THIRD GRADE) | | | | | | | | | |
| Word Knowledge | 23 | 49 | 15 | 32 | 9 | 19 | 7 | 15 | 2 |
| Word Analysis | 13 | 28 | 17 | 37 | 16 | 35 | 12 | 26 | 3 |
| Reading | 20 | 43 | 16 | 34 | 11 | 23 | 8 | 17 | 3 |

*There was a period of six months between pretest and posttest.

F. Pupils will increase last year's attendance average of 89 per cent (1970-71) by at least 2 per cent for the current year (1971-72).

The goal of the school to increase the overall percentage of attendance was facilitated by the social worker. Cases of chronic absenteeism were referred to her for follow-up or further referral to other cooperating agencies. Although Objective F was not met as stated, the school's attendance average for the 1971-72 school year did increase by one per cent over the previous year as shown in Table 3. Attendance increases were exhibited in the kindergarten, first, second, fourth, and sixth grades. In fact, the cumulative attendance average was 90 per cent or more for each of grades two through seven. The poorer attendance among the very young children may have been due in part to the fact that parents can not be compelled to send pupils under the age of seven to school.

TABLE 3

CUMULATIVE PER CENT OF ATTENDANCE BY GRADE LEVEL

| Grade | Per Cent of Attendance 1970-71 | Per Cent of Attendance 1971-72 |
|---|---|---|
| Kindergarten (a.m.) | 84 | 86 |
| Kindergarten (p.m.) | 82 | 83 |
| EMR | 87 | 75 |
| First | 87 | 89 |
| Second | 89 | 92 |
| Third | 92 | 90 |
| Fourth | 91 | 93 |
| Fifth | 91 | 91 |
| Sixth | 90 | 93 |
| Seventh | 94 | 90 |
| Total School | 89 | 90 |

| Mobility Index 1970-71 | Mobility Index 1971-72 |
|---|---|
| .31 | .44 |

The school's mobility index also increased over the previous year to a very high level. Over 40 per cent of the pupils were either new enrollees or left the school during the year. Increased attendance amid rising mobility is a significant accomplishment even though the exact objective was not met.

The remaining objectives to be evaluated were defined for pupils taught by a team of classroom teachers and COP aides. Aides provided by COP are involved in college level education courses and are working toward professional certification.

G. Those pupils in the primary cluster taught by a COP team will show significantly greater annual gains in reading than similar pupils not taught by a COP team.

H. Those pupils in the primary cluster taught by a COP team will make an annual academic gain of one year as measured by their reading scores on the MAT.

Since there was only one primary cluster and this cluster was a unique situation, there was no similar comparison group within the school. Instead, data concerning these pupils will be inlcuded as part of the overall COP comparison group and incorporated into the system-wide COP evaluation report.

The pupils in the primary cluster did not make an annual academic gain of one year as measured by their reading scores on the Metropolitan Achievement Tests. This annual gain would have been exhibited by at least a six-month gain between the pretest and posttest, but according to Table 4, below, the second and third grade pupils in this cluster exhibited a mean gain of only one month on the reading comprehension subtest during the six-month interval. The mean ending level of the 9 first grade pupils in this cluster was 1.4 rather than the expected 1.6.

### TABLE 4

### MEAN PERFORMANCE IN READING ON THE METROPOLITAN ACHIEVEMENT TESTS BY PUPILS TAUGHT BY A CAREER OPPORTUNITIES PROGRAM TEAM (PRIMARY CLUSTER -- N=68)

| Grade Level | Number of Pupils | Mean Gain (In Months) | Mean Posttest Score |
|---|---|---|---|
| First | 9 | ... | 1.4 |
| Second | 50 | 1 | 1.4 |
| Third | 9 | 1 | 1.7 |

It should be noted that the total enrollment of this cluster was approximately 108 pupils during the year although there were only 68 matched scores from which to compute gains. This high turnover among the pupil population, combined with the crowded classroom conditions due to lack of space, resulted in a frustrating teaching situation. The COP aide was assigned to this cluster for only the last half of the school year and worked primarily with those children experiencing the greatest difficulties in reading thus lightening the teachers' loads to some extent, but it is quite possible that this assignment change was made too late in the year and for too short of a duration for any results to be evident by April, 1972, the time during which the posttest was given.

I. Those pupils in the primary cluster taught by a COP team will show a more significant gain in self-concept as measured by the Self-Appraisal Inventory than will similar pupils taught in self-contained classrooms.

The self-concept instrument was administered only once during the school year; therefore, no measurement of gain is possible. Furthermore, the instrument was not administered to a control group as prescribed in the objective, disallowing any comparison of scores. The data in Table 5 were collected from those 23 pupils in the primary cluster who had the most contact with the COP aide, a member of the instructional team within that cluster. Subscores indicated that pupils had positive self-image in all areas, but that self-concept in relation to peers was less positive than in other areas.

TABLE 5

THE PERCENTAGES OF FAVORABLE RESPONSES ON THE SELF-APPRAISAL INVENTORY* FOR PUPILS TAUGHT BY THE CAREER OPPORTUNITIES PROGRAM INSTRUCTIONAL TEAM (PRIMARY CLUSTER -- N=23)

| CATEGORIES | | | | |
|---|---|---|---|---|
| Peer | Family | School | General | Overall Total |
| 65 | 70 | 72 | 73 | 70 |

*Self-Appraisal Inventory administered in March, 1972.

J. As a COP school, W. J. Scott will have a more open organizational climate than will similar schools that do not have a COP team.

The Organizational Climate Index used to measure this objective was described in detail on page 10. **Scott School's profile is presented** on the graph. The OCI scores were converted to standard scores; the mean score is 50 and the standard deviation is 10. After conversion, the higher the score on all six factors, the more open the climate. As indicated by the graph, it appeared that Scott teachers perceived the school climate as quite closed with reference to achievement standards. Although the other four first-order factors describing the development press, including intellectual climate, practicalness, supportiveness, and orderliness, were below the mean, they were still within one standard deviation of the mean. The school ranked relatively low, nineteenth, among the 26 schools included in the study in overall openness of climate as described by the development press with a standard score of 42.9. This may be one indication that the teachers do not wholeheartedly agree that the organizational structure of their school completely supports, satisfies, or rewards self-actualizing behavior.

On the other hand, the school scored above the mean on impulse control, ranking quite high on this factor as described by the control press, (Scott School tied with another school for Rank 7) implying that the teachers were quite free to be self-expressive.

Comparison of OCI results at Scott School with results for schools not having COP teams will be part of the final evaluation of the Career Opportunities Program.

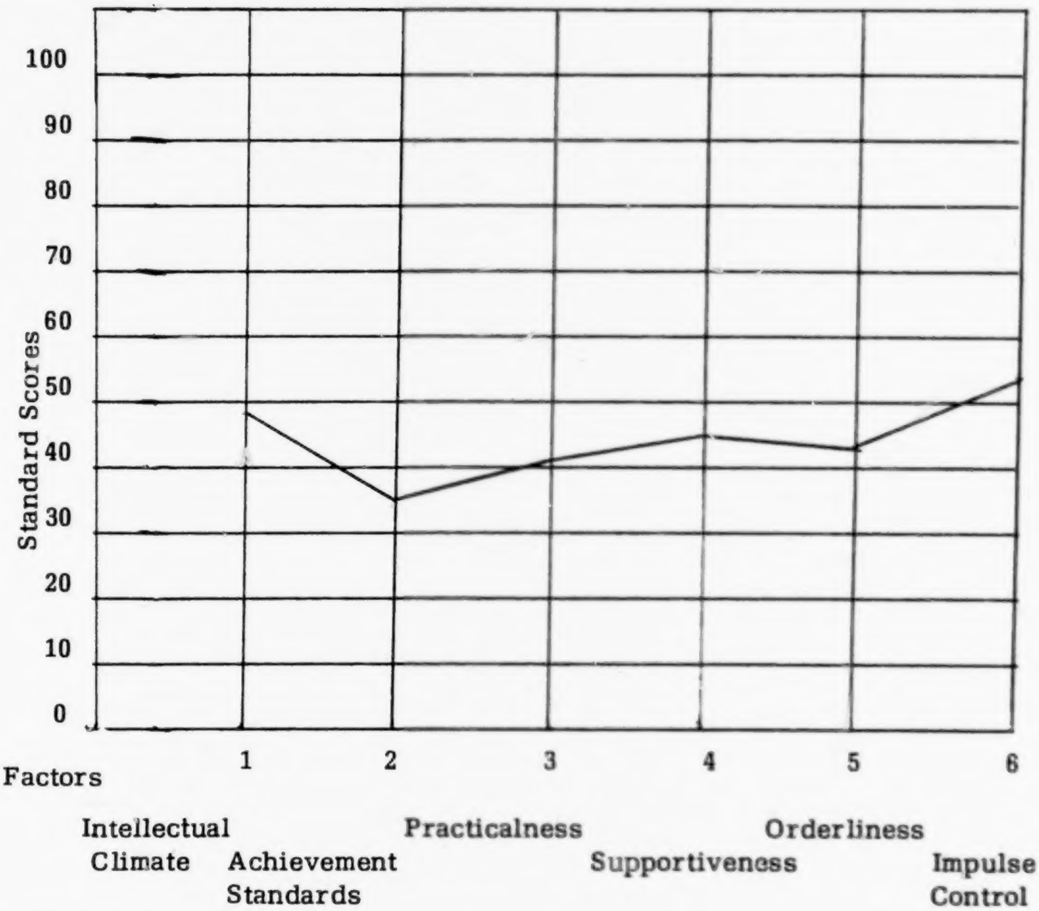
## Overview of Test Performance

The primary goal of Scott Elementary School was to increase the pupils' reading capabilities. As a measure of the progress made toward this goal, the standardized reading comprehension scores on the Metropolitan Achievement Tests were examined for all grade levels. Analysis of these scores in relation to mobility, attendance, predicted scores and national norms was done to explore the possible causes of achievement. When possible, comparisons were made with scores of the previous year.

Kindergarten pupils were tested for school readiness by the Basecheck in May, 1972. Two fulltime aides in the kindergarten should have had some effect on the pupils' learning process, although one aide was absent during a larger portion of the year. Lack of a control group, however, did not permit the effects of the aides to be analyzed. Basecheck results in Table 6 show that the average kindergarten pupil at Scott School completed the test with 76 per cent accuracy (71.9 points). Pupils were very strong in "Language" and also in "Auditory Perception" except in "rhyming." The low score in that subtest reduced the score in the entire area.

CHART 1

SCHOOL PROFILE OF STANDARD FACTOR SCORES ON THE *ORGANIZATIONAL CLIMATE INDEX*



## TABLE 6

## PUPIL PERFORMANCE ON THE BASECHECK*
(KINDERGARTEN -- N=72)

| Categories | Maximum Score | Mean Score | Pupils Scoring Maximum | Per Cent |
|---|---|---|---|---|
| Self-Concept | 11 | 9.7 | 34 | 47 |
| Language | | | | |
| Colors | 5 | 4.4 | 54 | 75 |
| Shapes | 5 | 3.5 | 21 | 30 |
| Relationships | 8 | 6.8 | 35 | 49 |
| Prepositions | 5 | 4.1 | 33 | 46 |
| Labeling | 10 | 8.7 | 26 | 37 |
| Total | 33 | 27.5 | -0- | 0 |
| Visual Perception | | | | |
| Same and Different | 5 | 3.9 | 28 | 39 |
| Letter Recognition | 10 | 6.4 | 22 | 31 |
| Knowing What a Word Is | 1 | 0.5 | 35 | 49 |
| Visual Memory | 3 | 2.0 | 31 | 43 |
| Total | 19 | 12.9 | -0- | 0 |
| Auditory Perception | | | | |
| Reproducing Taps | 4 | 2.9 | 25 | 35 |
| Following Directions | 2 | 1.8 | 56 | 78 |
| Repeating Sentences | 3 | 2.6 | 49 | 68 |
| Repeating Numerals | 3 | 2.5 | 44 | 61 |
| Rhyming | 5 | 1.4 | 2 | 3 |
| Total | 17 | 11.2 | -0- | 0 |
| Number Concepts | | | | |
| Recognition of Numerals | 5 | 2.8 | 26 | 36 |
| Rote Counting | -- | -- | -- | -- |
| Conservation of Numbers | 4 | 3.4 | 49 | 68 |
| More and Less | 2 | 1.9 | 61 | 85 |
| Ordinal Numbers | 4 | 2.5 | 26 | 36 |
| Total | 15 | 10.5 | -0- | 0 |
| Overall Total | 95 | 71.9 | -0- | 0 |

*Administered in May, 1972.

Analysis of posttest mean scores for all grade levels in reading comprehension gave an interesting picture of how the school stood as a whole in the accomplishment of its primary goal. Data in Table 7 show how pupils of the school fared in relation to national norms. (The norm at the time of posttesting was the seventh month of the appropriate grade level.) Eighty-five per cent of all pupils scored more than one year behind the national norm with approximately half of those pupils behind by more than two years. Pupils of the seventh grade scored noticeably low with 90 per cent scoring more than two years behind the national norm.

Another picture of reading achievement was described by the gain made during the instructional period between pre and post tests in October and April respectively. In consideration of the low performance level of many pupils, this description of achievement, perhaps, more accurately described how much pupils had accomplished in the school year. Gains listed in Table 8 indicate very poor performance by almost 50 per cent of the pupils, who made no gains at all or who scored lower on the post test than on the pretest. Unusually poor performance was observed in the sixth grade where the mean gain was negative, i.e. the mean post test score was two months behind the mean pre test score. The percentage of pupils who achieved at least a six-month gain during the six-month instructional period was 22. With the exception of the sixth grade, more pupils in the upper elementary grades gained six months than in the primary grades. The reasons for this generally poor performance are not evident. Additional analyses will be discussed for possible explanations.

Effects of mobility on test performance during the 1971-72 school year were analyzed by means of a t test between the reading scores of the permanent and mobile populations. For purposes of this test, pupils taking both pre and post tests comprised the permanent population while the pupils who took only one of the tests comprised the mobile population. It was assumed that pupils who took only one of the tests were not enrolled at the time of the other testing.

Table 9 shows the mean and statistical differences between the two populations on the pretest and on the posttest. Pretest scores of the mobile pupils tested against the pretest scores of the stable population yielded no statistically significant difference. These results imply that pupils who move out of the school achieve on the same level as pupils who stay in the school. The comparison of post test scores of the two populations showed that in some cases, namely, in grades three and five, pupils who took only the post test scored significantly higher than pupils who took both the pre and post tests. That is to say that pupils moving into the school outperformed pupils of the stable population in the third and fifth grades. Other grades showed no statistically significant differences.

## TABLE 7

### FREQUENCIES OF POSTTEST SCORES ON THE READING COMPREHENSION SUBTEST OF THE METROPOLITAN ACHIEVEMENT TESTS

| | More Than 2 Yrs. Behind | | 13 Months to 2 Yrs. Behind | | 1 Month to 1 Yr. Behind | | On or Above Grade Level | | |
|---|---|---|---|---|---|---|---|---|---|
| Grade | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | Mean Posttest Score |
| 2 | -- | -- | 42 | 84 | 8 | 16 | 0 | 0 | 1.4 |
| 3 | 23 | 49 | 20 | 43 | 3 | 6 | 1 | 2 | 1.9 |
| 4 | 26 | 36 | 32 | 44 | 10 | 14 | 5 | 7 | 3.0 |
| 5 | 31 | 58 | 14 | 26 | 7 | 13 | 1 | 2 | 3.7 |
| 6 | 11 | 39 | 9 | 32 | 7 | 25 | 1 | 4 | 3.9 |
| 7 | 27 | 90 | 3 | 10 | 0 | 0 | 0 | 0 | 4.4 |
| Total | 118 | 42 | 120 | 43 | 35 | 12 | 8 | 3 | --- |

## TABLE 8

### FREQUENCIES OF GAIN SCORES ON THE READING COMPREHENSION SUBTEST OF METROPOLITAN ACHIEVEMENT TESTS

| | GAIN | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0 Months | | 1-3 Months | | 4-5 Months | | 6 Months | | Mean Gain |
| Grade | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | In Months |
| 2 | 25 | 50 | 14 | 28 | 2 | 4 | 9 | 18 | 1 |
| 3 | 20 | 43 | 13 | 28 | 6 | 13 | 8 | 17 | 3 |
| 5 | 23 | 43 | 12 | 23 | 3 | 6 | 15 | 28 | 3 |
| 6 | 15 | 54 | 6 | 21 | 3 | 11 | 4 | 14 | -2 |
| 7 | 15 | 50 | 5 | 17 | 0 | 0 | 10 | 33 | 4 |
| Total | 98 | 47 | 50 | 24 | 14 | 7 | 46 | 22 | |

## TABLE 9

## COMPARISON OF METROPOLITAN ACHIEVEMENT TESTS READING SCORES OF PUPILS TAKING PRETEST OR POSTTEST ONLY WITH READING SCORES OF PUPILS TAKING BOTH PRETEST AND POSTTEST

| | Pretest Only | | | Pretest/ Posttest | | | | Posttest Only | | | Pretest/ Posttest | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Grade | No. | Mean | S.D. | No. | Mean | S.D. | t-Score | No. | Mean | S.D. | No. | Mean | S.D. | t-Score |
| 2 | 11 | 1.3 | .258 | 50 | 1.3 | .351 | - .306 | 13 | 1.4 | .210 | 50 | 1.4 | .290 | .183 |
| 3 | 15 | 1.6 | .366 | 47 | 1.6 | .449 | - .221 | 22 | 2.4 | 1.132 | 47 | 1.9 | .879 | 2.224* |
| 5 | 4 | 3.8 | .424 | 53 | 3.4 | .584 | 1.237 | 13 | 4.2 | 1.394 | 53 | 3.7 | .724 | 2.003* |
| 6 | 2 | 4.6 | .778 | 28 | 4.1 | .829 | .737 | 26 | 3.7 | .633 | 28 | 3.9 | .864 | -1.005 |
| 7 | 2 | 4.8 | 1.768 | 30 | 4.0 | 1.028 | .981 | 13 | 4.9 | 1.326 | 30 | 4.4 | .883 | 1.620 |

*Significant at the .05 level.

The effects of mobility are further described by Table 10 where scores and gains are listed for the stable population of pupils in 1970-71 and 1971-72. "Pupils Tested in 1970-71" and "Pupils Tested in 1971-72" refer to the pupils of each year who took both the pre and the post tests. "Pupils Tested in 1970-71 and 1971-72" are those who took both the pre and post tests in both years, comprising the intersection of the two previously described sets.

As a subset of the pre/post population of 1971-72, the pupils who were tested in 1970-71 and 1971-72 performed similarly to the entire group. However, the pre/post population of 1971-72 generally achieved much lower gains than the permanent population of 1970-71.

No significant correlation was found between attendance and gain in reading in grades two through seven with one exception. Table 11 indicates that in the sixth grade the correlation between percentage of attendance and gain in reading was .56 which is significant at the .01 level. Explanation for this exception was not evident from the data. Recall from previous discussion that achievement in reading was lowest in this grade where the mean gain was negative. Furthermore, attendance in the sixth grade was the highest in the school and improved by three points over 1970-71.

Further analysis of reading scores done by the Research and Development Division yielded a gain rate of effectiveness and an index of acceptability. The gain rate of effectiveness was determined from a predicted gain score that was based on the socioeconomic status, percentage of attendance, pupil-teacher ratio, mobility index, percentage of pupils passing, and standardized pretest scores. The actual gain of the pupils was then divided by the predicted gain to obtain the rate of effectiveness. The index of acceptability was calculated by dividing the actual post test mean score by the appropriate national norms. Comparison of the results for two years was then made. Results are recorded in Table 12.

Pupils at Scott Elementary School were generally less "effective" and less "acceptable" in 1971-72 than in the previous year. Only the fifth grade increased the gain rate of effectiveness and maintained the same level of acceptability. The second grade of 1970-71 was the only grade to increase its rate of effectiveness in 1971-72 when it became the third grade. The drop in effectiveness from 105 to 47 and the decrease in the index of acceptability from 63 to 54 indicate some problems in the reading program. The principal and faculty of Scott Elementary School are cooperating with the Division of Research and Development to determine solutions.

## TABLE 10

## LONGITUDINAL COMPARISON OF MEAN READING PRETEST/POSTTEST SCORES AND GAINS ON THE METROPOLITAN ACHIEVEMENT TESTS (1970-72)

|  | Pupils Tested in 1970-71* |  |  |  | Pupils Tested in 1970-71* |  |  |  | Pupils Tested on 1970-71 and 1971-72* |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | No. of | Mean Score |  | Gain in | No. of | Mean Score |  | Gain in | No. of | Mean Score |  | Gain in |
| Grade | Pupils | Pre | Post | Months | Pupils | Pre | Post | Months | Pupils | Pre (71) | Post (72) | Months |
| 2 | 56 | 1.5 | 1.8 | 33 | 50 | 1.3 | 1.4 | 1 | -- | -- | -- | -- |
| 3 | 56 | 1.8 | 2.5 | 7 | 47 | 1.6 | 1.9 | 3 | 24 | 1.6 | 1.9 | 3 |
| 4 | 40 | 2.9 | 3.6 | 7 | 73 | -- | 3.0 | -- | 42 | -- | 3.0 | -- |
| 5 | 44 | 3.5 | 3.8 | 3 | 53 | 3.4 | 3.7 | 3 | 31 | 3.4 | 3.7 | 3 |
| 6 | 34 | 4.5 | 4.2 | -3 | 28 | 4.1 | 3.9 | -2 | 21 | 4.2 | 3.9 | -3 |
| 7 | 33 | 4.5 | 5.2 | 7 | 30 | 4.0 | 4.4 | 4 | 20 | 4.1 | 4.6 | 5 |

*Includes only those pupils with both pretest and posttest scores, with the exception of the fourth grade in which only a posttest was given in 1971-72.

## TABLE 11

## CORRELATION BETWEEN METROPOLITAN ACHIEVEMENT TESTS PRETEST/POSTTEST READING GAIN SCORES AND ATTENDANCE

| Grade | D.F. | Coefficient of Correlation |
|---|---|---|
| 2 | 48 | .1314 |
| 3 | 45 | .0283 |
| 5 | 51 | .1254 |
| 6 | 26 | .5605** |
| 7 | 28 | .2189 |

** Significant at the .01 level.

## TABLE 12

## EFFECTIVENESS AND ACCEPTABILITY OF PUPIL PERFORMANCE ON THE READING SUBTEST OF THE METROPOLITAN ACHIEVEMENT TESTS

|  | Actual |  | Acceptable | Predicted | Gain |  | Gain Rate of Effectiveness |  | Index of Acceptability |  |
|---|---|---|---|---|---|---|---|---|---|---|
| Grade | Pre | Post | Post | Post | Actual | Predicted | 1971-72 | 1970-71 | 1971-72 | 1970-71 |
| 2 | 1.2 | 1.3 | 2.7 | 1.5 | 0.1 | 0.3 | 33 | 25 | 48 | 59 |
| 3 | 1.5 | 1.8 | 3.7 | 1.9 | 0.3 | 0.4 | 75 | 140 | 49 | 68 |
| 4 | 2.4 | 2.7 | 4.7 | 3.0 | 0.3 | 0.6 | 50 | 125 | 57 | 66 |
| 5 | 3.2 | 3.4 | 5.7 | 3.6 | 0.2 | 0.4 | 50 | 40 | 60 | 60 |
| 6 | 3.9 | 3.6 | 6.7 | 4.3 | -0.3 | 0.4 | -75 | 0 | 54 | 61 |
| 7 | 3.7 | 4.3 | 7.7 | 4.1 | 0.6 | 0.4 | 150 | 300 | 56 | 62 |
| AVERAGE |  |  |  |  |  |  | 47 | 105 | 54 | 63 |

## XI. COST ANALYSIS

An attempt has been made to relate gains in reading achievement to the amount expended in general and compensatory funds. This relation took the form of a projection of the amount of funds necessary for each pupil to achieve acceptable gains, i.e. one month of gain per month of instruction, the gain expected according to standardized norms. Total expenditures were obtained from the General Funds Financial Report, June 30, 1972, and from the Trust and Agency Report, June 30, 1972. Distribution of these funds was made uniformly for each pupil for general funds, but compensatory funds were weighted in relation to actual utilization of resources as indicated by the school staff. Per pupil cost was calculated by dividing actual expenditure by the average daily attendance. In order to determine the projection, the yearly per pupil expenditures were then divided by the mean rate of reading gain, yielding the per pupil cost required to achieve the expected gain of one grade unit. This method of projecting cost is not exact and, therefore, should be regarded only as an indication of the exisitng situation and not as a final determinant of solutions to academic problems.

Additional cost analysis was determined in relation to the gain rate of effectiveness. (See Findings p. 30.) The per pupil cost in compensatory funds was divided by the gain rate of effectiveness to calculate the cost per pupil for each unit of effectiveness.

The resulting per pupil expenditures are recorded in Table 13. Although achievement data was available for only grades two, three, five, six, and seven, expenditures for all grades were recorded for informational purposes.

Projected cost for one grade unit of gain varied considerably from grade level to grade level. Actual per pupil costs were relatively the same; therefore, differences in projected costs were due to differences in the rate of reading gain. In grades five, six, and seven where per pupil-expenditures were exactly the same for general and compensatory funds, the rate of reading gain varied from 0.16 to 0.37, implying that expenditures did not affect performance. In grades two and three, the per pupil expenditure differed by three dollars of general funds and rate of gain varied by 0.16 but this is not definitely attributable to the difference in expenditure.

Expenditure of compensatory funds for each unit of effectiveness also varied from grade to grade according to the gain rate of effectiveness. Unit costs ranged from 45 cents to $1.73 for grades two, three, five, and seven. The negative rate of effectiveness in the sixth grade precluded the calculation of expenditures. As for projected cost for one grade unit of gain, amount expended seemed to have no effect on the pupils' effectiveness in reading. The question therefore arises about what factors do influence reading achievement if the amount expended does not.

## TABLE 13

## ANALYSIS OF PER PUPIL EXPENDITURES FOR GENERAL AND COMPENSATORY FUNDS ACCORDING TO READING GAINS ON THE METROPOLITAN ACHIEVEMENT TESTS

| | GRADE | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Kinder-garten | First | Second | Third | Fourth | Fifth | Sixth | Seventh |
| Average Daily Attendance (ADA) | 63 | 79 | 71 | 78 | 76 | 62 | 53 | 44 |
| General Funds | | | | | | | | |
| Salary | $ 573 | $ 573 | $ 573 | $ 573 | $ 573 | $ 573 | $ 573 | $ 573 |
| Non Salary | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 |
| Total General Funds | $ 615 | $ 615 | $ 615 | $ 615 | $ 615 | $ 615 | $ 615 | $ 615 |
| CIP | | | | | | | | |
| Salary | $ -0- | $ -0- | $ -0- | $ .26 | - $ .26 | $ -0- | $ -0- | $ -0- |
| Non Salary | -0- | -0- | -0- | - 2.10 | 2.10 | -0- | -0- | -0- |
| Total CIP | $ -0- | $ -0- | $ -0- | $ 2.36$ | $ 2.36 | $ -0- | $ -0- | $ -0- |
| Total General Funds | | | | | | | | |
| Salary | $ 573 | $ 573 | $ 573 | $ 573 | $ 573 | $ 573 | $ 573 | $ 573 |
| Non Salary | 42 | 42 | 42 | 45 | 45 | 42 | 42 | 42 |
| Total General Funds | $ 615 | $ 615 | $ 615 | $ 618 | $ 618 | $ 615 | $ 615 | $ 615 |
| Compensatory Funds | | | | | | | | |
| ESAP | | | | | | | | |
| Salary | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 |
| Non Salary | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Total ESAP | $ 8 | $ 8 | $ 8 | $ 8 | $ 8 | $ 8 | $ 8 | $ 8 |
| Title I | | | | | | | | |
| Salary | | | | | | | | |
| Lead Teacher | $ 19 | $ 19 | $ 19 | $ 19 | $ 19 | $ 19 | $ 19 | $ 19 |
| Aides | 153 | 21 | 21 | 21 | 41 | 41 | 41 | 41 |
| Non Salary | 0 | 7 | 7 | 7 | 0 | 0 | 0 | 0 |
| Total Title I | $ 172 | $ 47 | $ 47 | $ 57 | $ 60 | $ 60 | $ 60 | $ 60 |

TABLE 13 (Cont'd)

| | GRADE | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Kinder-garten | First | Second | Third | Fourth | Fifth | Sixth | Seventh |
| COP | | | | | | | | |
| Salary | $ 0 | $ 3 | $ 3 | $ 3 | $ 0 | $ 0 | $ 0 | $ 0 |
| Total Compensatory Funds | | | | | | | | |
| Salary | $ 172 | $ 43 | $ 43 | $ 43 | $ 60 | $ 60 | $ 60 | $ 60 |
| Non Salary | 7 | 14 | 14 | 14 | 7 | 7 | 7 | 7 |
| Total Compensatory Funds | $ 179 | $ 57 | $ 57 | $ 57 | $ 67 | $ 67 | $ 67 | $ 67 |
| Total Per-Pupil Cost | | | | | | | | |
| General Funds | $ 615 | $ 615 | $ 615 | $ 618 | $ 618 | $ 615 | $ 615 | $ 615 |
| Compensatory Funds | 179 | 57 | 57 | 57 | 67 | 67 | 67 | 67 |
| Total | $ 794 | $ 672 | $ 672 | $ 675 | $ 685 | $ 682 | $ 682 | $ 682 |
| Rate of Reading Gain | -- | -- | .09 | .25 | -- | .23 | -.16 | .37 |
| *Projected Cost for One Grade Unit of Gain | | | | | | | | |
| General Funds | $ 0 | $ 0 | $6,833 | $2,472 | $ 0 | $2,723 | $ 0 | $1,662 |
| Compensatory Funds | 0 | 0 | 633 | 228 | 0 | 291 | 0 | 181 |
| Total | $ 0 | $ 0 | $7,466 | $2,700 | $ 0 | $3,014 | $ 0 | $1,843 |
| Gain Rate of Effectiveness | -- | -- | 33 | 75 | -- | 50 | -- | 150 |
| Expenditures per ADA of Compensatory Funds for Each Unit of Effectiveness | $ 0 | $ 0 | $ 1.73 | $ .77 | $ 0 | $ 1.36 | $ 0 | $ .45 |

*Projected Cost for Grades 2, 3, 5, and 7. Sixth grade was excluded due to its negative rate of gain. Kindergarten and first grade did not receive comparable pre and post tests to record usable gains.

## XII. CONCLUSIONS

The following conclusions were based on data previously presented and were made in consideration of W. J. Scott Elementary School's stated goals and objectives.

A. Pupils of the first grade did not master basic reading skills at the predicted rate.

B. Pupils of grades two and three did not make gains in basic reading skills as predicted in the objectives.

C. Pupils in grades two through seven did not make satisfactory progress in reading as measured by gains and post test scores on standardized tests.

D. Pupils moving out of the school performed comparably to pupils remaining in the school in the area of reading on standardized tests.

E. Pupils of grades three and five who moved into the school performed significantly better on standardized reading tests than pupils already enrolled.

F. Pupils made fewer gains in reading in 1971-72 than in 1970-71.

G. Gains in reading did not significantly correlate with percentage of attendance except in the sixth grade.

H. Pupils of 1971-72 scored further behind their predicted reading scores than pupils of 1970-71, when the prediction was based on both academic and non-academic factors.

I. Pupils of 1971-72 scored further behind national norms in reading than pupils of 1970-71.

J. Pupils taught by a COP team did not make annual gains of one year as predicted by the objective.

K. Percentage of attendance increased by one per cent over the previous year in spite of a 13 point increase in the mobility index.

L. Pupils taught by a COP team had positve favorable self images in relation to peers, family, school, and general self-concept.

M. The organizational climate at Scott Elementary School allowed for self-expression by the faculty but was not quite satisfactory in its promotion of self-actualizing behavior.

N. Reading gains cannot be predicted by the amount of expenditures.

## XIII. RECOMMENDATIONS

The following recommendations are made with regard to the school's primary primary goal of improving the reading capabilites of the pupils.

A. The faculty should discuss the possibility and benefits of a more uniform reading program that would provide continuity from one grade grade level to the next.

B. Consideration should be given to use of compensatory funds so as to achieve more effectiveness for amounts expended.

C. The large number of pupils making zero or negative gains on standardized tests warrants serious consideration of the appropriateness of such instruments and pupils' abilities to complete timed tests involving standardized directions.

D. Because the results of the reading program during FY 72 were not as satisfactory as they were during 1971, the local staff is urged to develop a systems approach to instruction. Based on their own self-evaluation efforts, with supportive aid where needed, the staff should clearly delineate behavioral objectives, specify instructional procedures, and review the results in an objective manner.

The faculty of W. J. Scott Elementary School is to be commended for its continuing efforts to fulfill the needs of their pupils. They are further encouraged to apply their concern and their excellent backgrounds to the continuous improvement of the reading program.

ED 078111

# RESEARCH AND DEVELOPMENT REPORT

Vol. VI, No. 23 April, 1973

# E. P. JOHNSON ELEMENTARY SCHOOL

## 1971-72

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## I. RATIONALE

E. P. Johnson Elementary School is located in the Summerhill community of the Model Cities area in southeast Atlanta. Residents are primarily low-income, apartment and rented home dwellers. Sixty-three per cent of the pupils come from families with incomes below $2,000 per year. The area has been losing families due to Urban Renewal for the past three years and this has caused a decreasing enrollment in the school. School population for the 1971-72 school year was 308 pupils in grades kindergarten through seventh as compared to 600 in 1969-1970. The mobility rate has stabilized for the past two years. This was .28 in 1970-71 and .29 in 1971-72.

E. P. Johnson school qualified, because of low income levels, for funds and services from special projects to help the school meet the needs of the pupils and community. These included the Comprehensive Instructional Program (CIP), Career Opportunity Program (COP), Title I program and the Model Cities programs. These resources were used in creating and sustaining activities designed to be life-oriented learning experiences.

## II. NEEDS

The identified needs of the participants were the foundation for the development of the school year plan. The goals, behavioral objectives, and critical variables were determined from and were to satisfy the identified needs. The needs were as follows:

A. To develop a more positive self-concept.

B. To develop a sound pattern of behavior.

C. To develop the desire, ability, and responsibility for learning.

D. To develop their basic reading skills.

E. To develop basic communication skills.

F. To develop a better understanding of reading as a tool for creativity and exploration.

G. To develop an awareness and understanding of the community in which they live.

## III. GOALS

The primary goal of Johnson School was to implement an intensive compensatory reading program designed to meet the needs of the most educationally deprived pupils in the first, second, and third grades. The secondary goals were as follows:

A. To provide opportunities for experiences which will foster development and growth of a more positive self-concept through various activities offered by the school.

B. To implement a meaningful, innovative reading program which will stimulate the interest and fit the needs of each pupil.

C. To assist teachers in the development of programs and materials for use in an effective reading program.

D. To provide the pupils with the opportunity to learn about the community through field trips.

## IV. BEHAVIORAL OBJECTIVES

The following objectives were formulated to evaluate the extent to which the school is meeting the needs of the pupils and the goals of the school program.

The behavioral objectives to be met were as follows:

A. Forty-five per cent of the pupils in grades two and three will show a 1.4 gain in grade level for reading skills as measured by the Metropolitan Achievement Tests(MAT).

B. Forty-five per cent of the pupils in grades five through seven will show at least a 1.8 gain in grade level for reading skills as measured by the MAT.

C. Five per cent of the pupils in grades five through seven will attain scores above their expected ending grade level for reading skills as measured by the MAT.

D. Seventy-five per cent of the pupils in the first grade will complete the Comprehensive Instructional Program (CIP) diagnostic tests A1 through A7 with at least seventy per cent accuracy.

E. Fifty per cent of the pupils in the second grade will complete the CIP diagnostic tests A1 through C9 with at least seventy per cent accuracy.

F. Forty per cent of the pupils in the second grade will complete the CIP diagnostic tests A1 through D1 at least seventy per cent accuracy.

G. Seventy-five per cent of the pupils in the third grade will complete the CIP diagnostic tests A1 through C9 with at least seventy per cent accuracy.

H. Thirty per cent of the third grade pupils will complete the CIP diagnostic tests A1 through D2 with at least seventy per cent accuracy. This objective will be measured on the basis of the scores of the third CIP test.

I. Fifty per cent of pupils in the fourth grade will complete the CIP diagnostic tests A1 through C9 with at least seventy per cent accuracy. This objective will be measured on the basis of the scores of the third CIP test.

J. Thirty per cent of the pupils in the fourth grade will complete the CIP diagnostic test A1 through D2 with at least seventy per cent accuracy

The specific goals and objectives for each of the supportive programs are shown in Section VI which describes each program.

## V. CRITICAL VARIABLES

The critical variables which were observed and measured to reflect the desired changes were as follows:

A. Self-Concept.

B. Reading Skills
  1. Vocabulary
  2. Word attack
  3. Comprehension.

C. Communication Skills.

## VI. SUPPORTIVE PROGRAMS

The supporting projects as well as the existing educational program were directed toward satisfying the identified needs. At E. P. Johnson the supporting projects were funded by the Comprehensive Instructional Program (CIP), the Career Opportunity Program (COP), the Model Cities Program, and the Title I Program.

### A. Comprehensive Instructional Program (CIP)

The CIP focused on diagnostic teaching of reading in grades one through three. The goal was to provide the pupils with skills in reading for educational growth. The objective was for each pupil to gain one month for each month of instruction.

### B. Career Opportunity Program (COP)

The COP was a training program for selected paraprofessionals. The goal was to up-grade paraprofessionals to certified teachers. The goal would be met through inservice training and availability of certain college courses to those in the program. The objective was: those pupils being taught by COP team would show a greater gain than similar pupils not being taught by a COP team.

### C. Model Cities Program

The Model Cities Program offered, to schools in the Model Neighborhood Area (MNA), educational programs that would increase attendance and achievement of pupils, decrease dropouts, provide day care services, and lower adult illiteracy and unemployment. The community residents selected the programs which would best suit the community needs. Johnson school participated in the following activities:

#### 1. Breakfast Program

The goal of the Breakfast Program was to provide a free, nutritional breakfast to as many pupils who desired it. The objective was to help increase the attendance rate.

#### 2. Extended Day Program

The Extended Day Program was directed toward the goals of providing enrichment and day care services for children in school. The objectives of the program were to improve the pupil's self-concept, to develop the pupil's positive attitude toward school, and to instill academic confidence in the pupils.

### 3. Preschool Program

The Preschool Program goals were to provide educationally directed day care services to children of working mothers and to prepare the children for kindergarten and first grade. The objectives of the program were to teach the child basic learning and motor skills and to develop good group play, social, and attendance habits.

### 4. Teacher-Pupil Services Program

The goal of Teacher-Pupil Services Program was to help increase the attendance rate. The objective was to improve home-school relationships. An attendance aide was used to improve attendance habits; attitudes toward school, teachers, and peers; and involve parents in school activities. The social worker handled the referral cases from the attendance aide.

## D. Title I Program

The Title I Program was designed to provide additional educational training to those pupils found to be educationally deprived.

### 1. Lead Teacher

The goal of the lead teacher project was to train the classroom teacher in diagnosing, prescribing, and preparing instructional materials which would benefit the pupils. The project objective was to improve the reading skills of the educationally deprived.

### 2. Kindergarten

The goal of the kindergarten project was to provide the kindergarten teachers with aides to allow for more individualized instruction. The objective was to have the children better prepared for entry into the first grade.

## VII. MANAGEMENT AND CONTROL

### Administration

The faculty at E. P. Johnson school was experienced and stable. Most teachers had been at the school for 15 to 20 years. The teacher-pupil ratio was 1 to 22. Good cafeteria service was provided. Attendance was no problem due to the use of attendance aides who visited homes every day to check on absent pupils. An excellent personal relationship was maintained by the principal with the pupils. He greeted each child by name each day and was always available to discuss school or personal problems with pupils and their parents.

### Instructional Organization

The prekindergarten through fourth grades were organized in self-contained classrooms. The fifth through seventh grades were departmentalized with pupils changing classrooms. Itinerant teachers were available in art, speech therapy, and hearing therapy. Stress was put on the world in which the pupil lives and a development of the awareness of the opportunities for employment with emphasis on life experiences.

## VIII. PROCESS

In addition to the supportive programs and personnel as previously covered, examples of activities that were used to achieve the goals and behavioral objectiv included the following:

A. Personal greeting of each pupil by name by the principal each morning developed a close relationship. The principal's apparent concern for each pupil was commendable.

B. Resource room for remedial reading was utilized by five groups of six pupils on a regular basis.

C. Extensive use was made of the lead teacher for inservice training in reading for all teachers.

D. Comprehensive Instructional Program (CIP) diagnostic tests were used as a constant monitoring and assessment tool in the Reading program.

E. Field trips for the seventh grade were used to acquaint the pupils with the world of work and career opportunities.

F. Outside speakers from industry and government were utilized to present new ideas and views to the pupils. Discussions before and after speeches were held to prepare the pupils for the subjects of the speeches.

G. The Learning Festival for all grades from prekindergarten to seventh involved all pupils in projects for presentation to the community. This allowed the parents to see what was being accomplished by their children.

H. The breakfast period was used as an opportunity for verbal interchange between pupils and principal, and as a readiness period for quieting down the pupils before classroom activities. This helped decrease discipline problems.

## IX. EVALUATION PLAN

The projects of Johnson school will be evaluated on the basis of goal achievement and behavioral objective attainment. The plan for evaluation is as follows:

### Instruments

A. Levels of achievement in reading will be determined from post Metropolitan Achievement Tests (MAT) scores.

B. Rate of gain for reading skills will be determined from differences in the pre and post MAT scores.

C. Per cent of attendance improvement will be determined from the school records.

D. Parental involvement, on a volunteer basis, will be determined by checking school records.

E. Pupil attitude changes will be measured by a pre and a post attitude survey.

F. The pre and post scores on the Basecheck test will be used to determine gains made by the preschool children.

G. Breakfast program participation rate will be determined from the records of the daily meals served.

H. Teacher-Pupil Services Program performance will be determined from the monthly output measures for both the attendance aide and the social worker.

I. Cost effectiveness will be determined on a per pupil expenditure basis for each grade.

## Methodology

Evaluation of the accomplishments for the 1971-72 school year will take four approaches (1) Evaluation of behavioral objectives, (2) Evaluation of supportive programs, (3) a review of test performance in 1971-72 and (4) a longitudinal view of test data for 1970-71 and 1971-72 based on effectiveness and acceptability. Included will be comparison of scores in reading against national norms, city-wide norms, and frequencies in gains and posttest scores.

# X. FINDINGS

## Evaluation of Behavioral Objectives

A. Forty-five per cent of the pupils in grades two and three will show a 1.4 gain in grade level for reading skills.

This was a ambitious objective, and if it had been reached. exceptional progress would have been made. None of the pupils in the second or third grade achieved the objective. A frequency distribution of gains is shown in Table 1 (see page 9).

Twenty-five per cent of the second grade and 12 per cent of the third grade did achieve more than one month for each month of instruction (.6). The majority of both grades scored less than .3 for the year.

B. Forty-five per cent of the pupils in grades five through seven will show at least a 1.8 gain in grade level for reading skills.

This objective was achieved in the fifth, sixth, and seventh grades. This is very commendable considering the high level of the objective. A frequency distribution of gains for these three grades is shown in Table 2 (see page 9).

Forty-seven per cent of the fifth grade, 62 per cent of the sixth, and 52 per cent of the seventh achieved the objective. One reason for the extremes of either high or low achievement was due to the wide range of abilities of the pupils and the differences in entry level performance.

C. Five per cent of the pupils in grades five through seven will attain scores above their expected ending grade level for reading skills.

Using the national levels of 5.7, 6.7, and 7.7 for fifth, sixth, and seventh grades respectively the objective was exceeded appreciably.

## TABLE 1

### READING GAINS MADE ON METROPOLITAN ACHIEVEMENT TESTS
### BETWEEN PRETEST AND POSTTEST*

| | Negative to 0 | | .1 to .3 | | .4 to .6 | | .7 to .9 | | 1.0 & above | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | Mean Gain |
| 2nd Grade | 4 | 7 | 11 | 43 | 7 | 25 | 7 | 25 | 0 | 0 | .4 |
| 3rd Grade | 12 | 46 | 7 | 27 | 4 | 15 | 3 | 12 | 0 | 0 | .1 |

*6 month period.

## TABLE 2

### READING GAINS MADE ON METROPOLITAN ACHIEVEMENT TESTS
### BETWEEN PRETEST AND POSTTEST*

| | Negative to 0 | | .1 to .6 | | .7 to 1.2 | | 1.3 to 1.8 | | 1.8 & above | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | Mean Gain |
| 5th Grade | 8 | 23 | 3 | 9 | 2 | 6 | 5 | 15 | 16 | 47 | 2.2 |
| 6th Grade | 6 | 25 | 2 | 8 | 1 | 5 | 0 | 0 | 15 | 62 | 2.3 |
| 7th Grade | 5 | 12 | 3 | 8 | 4 | 10 | 8 | 20 | 20 | 50 | 2.2 |

*6 month period.

Table 3 (see page 11) shows the frequency distribution of all grades and a comparison with national and city-wide levels. The percentages for each grade are: 47 per cent for the fifth, 52 per cent for the sixth and 42 per cent for the seventh. This is an excellent accomplishment.

D. Seventy-five per cent of the pupils in the first grade will complete the Comprehensive Instructional Program (CIP) diagnostic tests A1 through A7 with, at least, seventy per cent accuracy.

Only 10 pupils, or 28 per cent, achieved the objective.

E. Fifty per cent of the second grade pupils will complete the CIP diagnostic tests A1 through C-9 with at least seventy per cent accuracy.

Only four pupils, or 13 per cent, achieved the objective.

F. Forty per cent of the pupils in the second grade will complete the CIP diagnostic tests A1 through C9 with at least seventy per cent accuracy.

No pupils achieved the objective.

G. Seventy-five per cent of the pupils in the third grade will complete the CIP diagnostic tests A1 through C9 with at least seventy per cent accuracy.

Fourteen, which is 35 per cent, achieved the objective. One third grade class did not have a third testing.

H. Thirty per cent of the third grade pupils will complete the CIP diagnostic tests A1 through D2 with at least seventy per cent accuracy. This objective will be measured on the basis of the scores of the third CIP test.

Only one pupil achieved the objective.

I. Fifty per cent of pupils in the fourth grade will complete the CIP diagnostic tests A1 through C9 with at least seventy per cent accuracy. This objective will be measured on the basis of the scores of the third CIP test.

Eleven pupils, which is 30 per cent, achieved the objective.

J. Thirty per cent of the pupils in the fourth grade will complete the CIP diagnostic tests A1 through D2 with at least seventy per cent accuracy.

No pupils achieved the objective.

TABLE 3

ANALYSIS OF POSTTEST SCORES IN READING
ON THE METROPOLITAN ACHIEVEMENT TESTS

| | 24 Months or More Behind* | | 12-23 Mos. Behind* | | 3-11 Mos. Behind* | | Within 2 Mos. or Above* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grade | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | Post test Level | City-wide Level | National Level |
| 2 | 0 | 0 | 12 | 41 | 15 | 52 | 2 | 7 | 2.0 | 2.4 | 2.7 |
| 3 | 7 | 26 | 19 | 70 | 1 | 4 | 0 | 0 | 2.2 | 3.0 | 3.7 |
| 4 | 17 | 46 | 15 | 41 | 4 | 11 | 1 | 3 | 3.0 | - | 4.7 |
| 5 | 8 | 24 | 5 | 15 | 6 | 18 | 15 | 44 | 5.8 | 3.9 | 5.7 |
| 6 | 11 | 46 | 1 | 4 | 0 | 0 | 12 | 50 | 6.0 | 4.4 | 6.7 |
| 7 | 15 | 37 | 7 | 17 | 2 | 5 | 17 | 41 | 7.0 | 4.8 | 7.7 |
| | 58 | 30 | 59 | 31 | 28 | 15 | 47 | 24 | | | |

---

*Compared to national norms.

None of the CIP based objectives were reached. This points out the difficulty that arises in using a diagnostic tool as an evaluative instrument. It is virtually impossible to judge if a group has accomplished the objective when several sections of the test are involved and gradations are not taken into account. The objectives were not definitive enough to be practical.

## Evaluation of Supportive Programs

The supportive programs each have a goal and/or objective that was related to specific needs in the school. Each should be evaluated in respect to its accomplishments in reaching this goal or objective.

### A. Comprehensive Instructional Program (CIP)

CIP had as an objective to have each pupil in grades 2 and 3 gain one month in reading for each month of instruction. This would be a gain of .6 due to the six month pretest - posttest period. There were only 10 of 55 second and third graders who achieved this gain. The objective was not reached.

### B. Career Opportunity Program (COP)

The objective was to have pupils taught by a COP team show greater gains than other pupils. Because the COP aides did not spend all of their time with one grade or group, it is not possible to evaluate this objective.

### C. Model Cities Programs

#### 1. Breakfast

The goal was to provide a free, nutritional breakfast to all children who desired it. The program started in March, and an average of 200 pupils took part each day. The objective was to help reduce absenteeism, and for the year attendance increased 2.3 per cent over the previous year. It is felt that the program helped achieve this gain.

#### 2. Extended Day

The program hd as a goal to provide enrichment activities and supervised day care to school-age children before and after regular school hours. Approximately 200 pupils took part in this activity each month. The objective was to show a more positive attitude toward school. This cannot be evaluated because of testing difficulties.

#### 3. Prekindergarten

The goal was to provide educationally directed day care for children of mothers who work and to prepare children for kindergarten. Thirty children were enrolled in the class. The objective was to teach basic learning skills as measured by the Basecheck test. A gain of 40.8 per cent was shown between pre and posttest scores. The criteria was 25 per cent, so the objective was achieved.

4. Teacher-Pupil Services

This program was designed to help increase the attendance rate through the use of attendance aides. There was an increase of 2.3 per cent over the previous year. Some of this gain was attributable to this program.

D. Title I

The Title I lead teacher concentrated on improving the teaching skills of all teachers in the area of reading. The aides worked primarily with the first, second, and third grades. The objective was to improve reading skills in these grades. They did not show significant gains.

The kindergarten program used aides to help the teachers better prepare the pupils for first grade. The Metropolitan Readiness Tests(MRT) given to first graders in October, 1972, showed a score of 53 for children with kindergarten experience and a score of 48 for no experience. The national average after kindergarten experience is 54. Therefore, the objective was achieved because the pupils were better prepared for first grade.

## Evaluation of Test Performance

With emphasis on the reading program at E. P. Johnson, the MAT can be used to guage progress in reading. Excellent results were achieved in the upper grades as compared to city-wide levels and fair achievement against national levels. The lower grades did not perform as well and did poorly against national norms and city-wide norms. Their gains also were less than should be expected. This is shown on Table 4 (see page 14).

## Evaluation of Longitudinal Data

This is an attempt to track pupil progress in the school. Table 5 (see page 15) shows grade level, gain and rate of gain comparisons for 1970-71 and 1971-72.

Further analysis of reading scores was made on the basis of predicted achievement for each grade level. A regression equation employing factors of attendance, mobility, socio-economic status, pupil-teacher ratio, percentage of pupils passing, and pretest scores

## TABLE 4

## COMPARISON OF POSTTEST LEVEL, GAIN, AND RATE OF GAIN
1970-71 and 1971-72

Grade Level (Posttest)

| Grade | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| 70-71 | 1.95 | 2.12 | 3.15 | 3.39 | 3.83 | 4.47 |
| 71-72 | 1.95 | 2.10 | 3.00 | 5.77 | 5.95 | 6.95 |

Gain (Pre-Post)

| Grade | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| 70-71 | 0.47 | 0.39 | 0.63 | 0.07 | 0.14 | 0.66 |
| 71-72 | 0.39 | 0.09 | - | 2.18 | 2.30 | 2.24 |

Rate of Gain

| Grade | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| 70-71 | 0.70 | 0.60 | 1.00 | 0.10 | 0.20 | 1.00 |
| 71-72 | 0.62 | 0.14 | - | 3.51 | 3.70 | 3.62 |

## TABLE 5
## READING TEST DATA FOR 1971-72

| Grade | Actual | | Acceptable Post | Predicted Post | Gain | | Gain Rate of Effectiveness | | Index of Acceptability | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Pre | Post | | | Actual | Predicted | 1971-72 | 1970-71 | 1971-72 | 1970-7 |
| 2 | 1.3 | 1.9 | 2.7 | 1.7 | 0.6 | 0.4 | 150 | 150 | 70 | 74 |
| 3 | 1.9 | 1.6 | 3.7 | 2.3 | -0.3 | 0.4 | -75 | 50 | 43 | 59 |
| 4 | 2.2 | 2.7 | 4.7 | 3.0 | 0.5 | 0.8 | 62 | 120 | 57 | 64 |
| 5 | 3.4 | 5.0 | 5.7 | 3.9 | 1.6 | 0.5 | 320 | 0 | 88 | 53 |
| 6 | 3.4 | 7.0 | 6.7 | 3.8 | 3.6 | 0.4 | 900 | -150 | 104 | 51 |
| 7 | 4.3 | 6.2 | 7.7 | 4.7 | 1.9 | 0.4 | 475 | 180 | 81 | 56 |
| | | | | | | Average | 305 | 58 | 74 | 60 |

formulated predictions of posttest scores and resulting gains. A ratio of actual gain to predicted gain yielded a percentage described as a gain rate of effectiveness. Another ratio of the actual posttest score divided by the national norm for the respective grade level resulted in an index of acceptability. Table 6 (see page 17 and 18) shows the changes in the gain rate of effectiveness and the index of acceptability occurring over two years.

Gain rate of effectiveness improved in grades 5, 6, and 7, but fell in grades 3 and 4. Grade 2 stayed the same. Overall, the rate is higher, but this is due to the outstanding performance of the upper grades.

The index of acceptability increased slightly (6 points) again due to the performance of the upper grades. Grades 2, 5, 6, and 7 exceeded the predicted post scores.

Total acceptability is lower than desired, but the school is effective. This is shown in Table 5.

## XI. COST ANALYSIS

The data presented in Table 6 show the relative cost for a one-grade-unit of gain based upon the rate of gain for 1971-72 and the amount spent. In order to compute these costs, expenditures were taken from the General Funds Report, June, 1972, and the Trust and Agency Report, June, 1972. From these figures estimates were made of the per-pupil cost from general funds and special projects (compensatory funds). These data also show the cost in compensatory funds for each unit of effectiveness -- effectiveness as determined in the 1972 Effective? Acceptable? Study. The reader is cautioned that these data are not exact or finite; Broad estimates were made based upon information obtained from the school staff relative to the utilization of resources.

According to these data, the cost for a one-grade-unit of gain was not related to the funds spent. The fifth, sixth, and seventh grades had the lowest amount spent and the highest gains. In relationship to effectiveness, there are no indications that funds spent influenced the effectiveness of the reading program. The question must be adked as to what factors contributed to the variances.

## TABLE 6

## COST ANALYSIS OF READING GAINS BY GRADES
## TOTAL AVERAGE DAILY ATTENDANCE
## K-7 N=290

| | GRADES | | | | | |
|---|---|---|---|---|---|---|
| | Second | Third | Fifth | Sixth | Seventh | Total |
| ADA | 30 | 33 | 39 | 29 | 46 | |
| Per-Pupil Cost | | | | | | |
| A. General Funds | | | | | | |
| 1. Regular | | | | | | |
| a. Salary | $ 892 | $ 892 | $ 892 | $ 892 | $ 892 | $ 892 |
| b. Non-salary | 84 | 84 | 84 | 84 | 84 | 84 |
| c. Total | 976 | 976 | 976 | 976 | 976 | 976 |
| 2. CIP | | | | | | |
| a. Salary | $ 0 | $ 0 | $ 0 | $ 0 | $ 0 | $ 0 |
| b. Non-salary | 3 | 3 | 3 | 3 | 3 | 3 |
| c. Total | $ 3 | $ 3 | $ 3 | $ 3 | $ 3 | $ 3 |
| 3. Total General Funds | | | | | | |
| a. Salary | $ 892 | $ 892 | $ 892 | $ 892 | $ 892 | $ 892 |
| b. Non-salary | 87 | 87 | 87 | 87 | 87 | 87 |
| c. TOTAL GENERAL FUNDS | $ 979 | $ 979 | $ 979 | $ 979 | $ 979 | $ 979 |
| B. Compensatory Funds | | | | | | |
| 1. Model Cities | | | | | | |
| a. Salary | $ 277 | $ 277 | $ 277 | $ 277 | $ 277 | $ 277 |
| b. Non-salary | 6 | 6 | 6 | 6 | 6 | 6 |
| c. TOTAL MODEL CITIES | $ 283 | $ 283 | $ 283 | $ 283 | $ 283 | $ 283 |
| 2. COP | | | | | | |
| a. Salary | $ 8 | $ 8 | $ 8 | $ 8 | $ 8 | $ 8 |
| b. Non-salary | 0 | 0 | 0 | 0 | 0 | 0 |
| c. Total | $ 8 | $ 8 | $ 8 | $ 8 | $ 8 | $ 8 |

TABLE 6 (CONT'D)

| | GRADES | | | | | |
|---|---|---|---|---|---|---|
| | Second | Third | Fifth | Sixth | Seventh | Total |
| 3. ESAP | | | | | | |
| a. Salary | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 |
| b. Non-salary | 0 | 0 | 0 | 0 | 0 | 0 |
| c. TOTAL ESAP | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 |
| 4. Title I | | | | | | |
| a. Salary | $ 56 | $ 56 | $ 21 | $ 21 | $ 21 | $ 33 |
| b. Non-salary | 1 | 1 | 1 | 1 | 1 | 1 |
| c. TOTAL TITLE I | $ 57 | $ 57 | $ 22 | $ 22 | $ 22 | $ 34 |
| 5. Total Compensatory Funds | | | | | | |
| a. Salary | $ 342 | $ 342 | $ 307 | $ 307 | $ 307 | $ 319 |
| b. Non-salary | 7 | 7 | 7 | 7 | 7 | 7 |
| c. TOTAL COMPENSATORY FUNDS | $ 349 | $ 349 | $ 314 | $ 314 | $ 314 | $ 326 |
| C. Total Per-Pupil Cost | | | | | | |
| 1. General Funds | $ 979 | $ 979 | $ 979 | $ 979 | $ 979 | $ 979 |
| 2. Compensatory Funds | 349 | 349 | 314 | 314 | 314 | 326 |
| 3. TOTAL PER-PUPIL COST | $ 1,328 | $ 1,328 | $ 1,293 | $ 1,293 | $ 1,293 | $1,305 |
| D. Rate of Reading Gain (Per Cent) | 62 | 14 | 351 | 370 | 362 | 232 |
| E. Projected Cost for One-Grade-Unit of Gain | | | | | | |
| 1. General Funds | $ 1,579 | $ 6,993 | $ 279 | $ 265 | $ 270 | $1,737 |
| 2. Compensatory Funds | 563 | 2,493 | 89 | 118 | 87 | 622 |
| 3. TOTAL PROJECTED COST FOR ONE-GRADE-UNIT OF GAIN | $ 2,142 | $ 9,486 | $ 368 | $ 383 | $ 357 | $2,359 |
| F. Gain Rate of Effectiveness | 150 | -75 | 320 | 900 | 475 | 305 |
| G. Expenditure per ADA of Compensatory Funds For each Unit of Effectiveness | $2.33 | $ 0 | $0.98 | $0.35 | $0.66 | $1.03 |

## XII. CONCLUSIONS

Based on discussions with the principal and faculty, and an analysis of the data concerning pupil progress, the following conclusions were drawn:

A. The lower grades did not achieve the objectives that were set in reading.

B. The upper grades did an outstanding job in the reading program.

C. The CIP diagnostic test should not be used as an evaluative tool.

D. The Breakfast, Extended Day, Prekindergarten, Teacher-Pupil Services, and Kindergarten programs achieved their objectives.

E. Pupils in grades 2, 5, 6 and 7 gained as much or more than predicted in the Effective? - Acceptable? study.

F. Grades 2 and 3 were close to and grades 5, 6, and 7 exceeded city-wide levels in reading.

G. The amount of funds spent did not relate significantly to the performance of the pupils.

## XIII. RECOMMENDATIONS

The following recommendations are made as a result of the findings in this report:

A. The practices that were used to cause exceptional gains in the upper grades should be used to improve the lower grades.

B. Concentration should be placed on raising the level of acceptability to improve overall levels of the pupils.

C. Specific plans should be made to utilize better the supportive programs in relation to the needs of the pupils.

D. Better use should be made of the aides to supplement instructional services.

The faculty is to be commended for their efforts and concern for the pupils. Special praise should be given to the upper grade teachers for their outstanding work. The faculty is encouraged to continue to seek out approaches that will raise the level of acceptability to match the gains made in effectiveness this year.

RESEARCH AND DEVELOPMENT REPORT

Vol. VI, No. 28 April, 1973

# D. H. STANTON ELEMENTARY SCHOOL

1971-72

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## I. INTRODUCTION

D. H. Stanton Elementary School is located at 970 Martin Street S. E., in the Peoplestown community of the Model Cities area. The majority of the families have income under $3,000 and most receive welfare financial assistance. The pupils come from federal housing projects, apartment complexes, and privately owned homes. The school population was 780 in 1970-71 and 739 in 1971-72. The enrollment was very flexible because of migration to other parts of the city due to Model Cities housing rehabilitation. The mobility index was .33 in 1970-71 and .40 in 1971-72. In the school enrollment less than five per cent are white.

D. H. Stanton qualified for funds and services from special projects to help meet the needs of the pupils and community. These included the Comprehensive Instructional Program (CIP), Career Opportunity Program (COP), Title I, and the programs from the Model Cities Educational Component. These resources were used in creating new and supplementing on-going school activities.

## II. NEEDS

The identified needs of the participants were the foundation for the development of the school year plan. The goals, behavioral objectives, and critical variables were determined from and are to satisfy the identified needs. These needs were as follows:

A. Pupils to improve their self-concepts.

B. Pupils to develop basic communication skills.

C. Pupils to develop a desirable level of competence in basic subjects.

D. Pupils to develop the ability to make decisions.

E. Pupils to participate in group activities.

F. Pupils to improve their school attendance habits.

G. Pupils to be exposed to cultural and social enrichment experiences.

H. Pupils to have improved health care and proper diet.

I. Parents to be more aware of and involved in school activities.

## III. GOALS

The primary goal of Stanton school was to provide a well planned instructional program that would meet the individual, aesthetic, ethnical, and intellectual needs of the pupils. The secondary goals were as follows:

A. To provide the pupils with meaningful, motivating experiences through various activities offered by the school.

B. To develop the pupils appreciation for individual values through group discussion oriented activities.

C. To provide the pupils with enrichment experiences through various media, art, filmstrips, music, community resources, and field trips.

D. To strengthen the school-home relationships through parental involvement activities.

E. To improve the pupils attendance habits through various extra curricular activities offered by the school.

## IV. BEHAVIORAL OBJECTIVES

The behavioral objectives to be met as a result of planning by the principal and faculty were as follows:

A. Twenty-five per cent of the pupils in grade one will successfully complete the Comprehensive Instructional Program (CIP) diagnostic reading test through C-3 with eighty-five per cent accuracy as measured by the third CIP testing period.

B. Seventy-five per cent of the pupils in grade one will successfully complete the CIP diagnostic reading test C-3 with eighty per cent accuracy as measured by the third CIP testing period.

C. Fifteen per cent of the pupils in grades two, three, five, six, and seven will show at least a 0.7 gain in grade level for reading skills after a period of six months of instruction as measured by the Metropolitan Achievement Tests (MAT).

D. Eighty-five per cent of the pupils in grades two, three, five, six, and seven will show at least a 0.5 gain in grade level for reading skills after a period of six months of instruction as measured by the MAT.

E. Fifteen per cent of the pupils in grades five through seven will show at least a 0.6 gain in grade level for social studies and science knowledge after six months of instruction as measured by the MAT.

F. Eighty-five per cent of the pupils in grades five through seven will show at least a 0.4 gain in grade level for social studies and science knowledge after a period of six months of instruction as measured by MAT.

G. Twenty-five per cent of the pupils in grades two, three, five, six, and seven will show at least a 1.0 gain in grade level for arithmetic skills after a period of six months of instruction as measured by MAT.

H. The per cent of attendance rate will increase by at least five per cent over last year's rate.

I. Dental services for pupils will increase by at least ten per cent over last year's rate.

J. Parent involvement in school activities will increase by at least five per cent over the rate of last year.

Specific goals and objectives for supportive programs are shown in section VI, Supportive Programs.

## V. CRITICAL VARIABLES

The critical variables which were observed and measured to reflect the desired changes were as follows:

A. Attitudes
   1. Emotions
   2. Self-concept
   3. Ideas
   4. Environmental Factors
   5. Values
   6. Community Resources
   7. Parental Attitudes
   8. Attendance.

B. Mathematical Skills
   1. Addition
   2. Subtraction

3. Division
4. Multiplication
5. Sets and Numbers.

C. Reading Skills
   1. Vocabulary
   2. Word Attack
   3. Comprehension
   4. Communication
   5. Sentence Structure
   6. Work Study Skills.

D. Social Studies Skills
   1. Map Study
   2. Graph Study
   3. Concepts
   4. Vocabulary.

E. Science Skills
   1. Problems
   2. Concepts
   3. Research Procedures
   4. Investigation Techniques.

## VI. SUPPORTIVE PROGRAMS

The supporting projects as well as the existing educational program were directed toward satisfying the identified needs. At Stanton school the supporting projects were the Comprehensive Instructional Program (CIP), the Career Opportunity Program (COP), the Model Cities Educational Component, the Title I Program, and the Emergency School Assistance Program (ESAP).

### A. Comprehensive Instructional Program (CIP)

CIP focused on diagnostic teaching of reading in grades one through three and mathematics in grades four through six. The goal was to provide the pupils with the skills in reading and mathematics for educational growth. The objective was for each pupil to gain one month for each month of instruction.

### B. Career Opportunity Program (COP)

COP was a training program for selected paraprofessionals. The goal was to up-grade paraprofessionals to certified teachers. The objective was: those pupils being taught by a COP team will show a greater gain than similar pupils not taught by a COP team. The objective was to be met through inservice training and availability of certain college courses to those in the program.

## C. Model Cities Educational Component

The Model Cities Educational Component offered, to schools in the Model Neighborhood Area (MNA), educational programs that would increase attendance and achievement of pupils, decrease dropouts, provide day care services, and lower adult illiteracy and unemployment. The community residents selected the programs which best suited the community needs. Stanton school participated in the following activities:

### 1. Preschool Program

The Preschool Program goals were to provide educational directed day care services to children of working mothers and to prepare the children for kindergarten and first grade. The objectives were to teach the child basic learning and motor skills and to develop good group play, social, and attendance habits.

### 2. Extended Day Program

The Extended Day Program was directed toward the goals of providing enrichment and day care services for children in school. The objectives of the program were to improve the pupil's positive attitudes toward school, and to instill academic confidence in the pupils.

### 3. Breakfast Program

The goal of the Breakfast Program was to provide a free nutritional breakfast to as many pupils who desired it. The objective was to help increase last year's attendance rate by five per cent.

### 4. Teacher-Pupil Services

The goal of Teacher-Pupil Services was to help increase the attendance rate by five per cent above the rate of last year. The objective was to improve home-school relationships. An attendance aide was used to improve attendance habits; attitudes toward school, teachers, and peers; and involve parents in school activities. The social worker handled the referral cases from the attendance aide.

### D. Title I Program

The Title I Program was designed to provide additional educational training to those pupils found to be educationally deprived. The activities at Stanton School were:

#### 1. Lead Teacher Program

The goal of the Lead Teacher project was to train the classroom teachers in diagnosing, prescribing, and preparing instructional materials which will benefit the pupils. The project objective was to improve reading skills of the educationally deprived children.

#### 2. Kindergarten Program

The goal of the kindergarten project was to provide the kindergarten teachers with aides to allow for more individualized instruction. The objective was to have the children better prepared for entry into the first grade.

### E. Emergency School Assistance Program (ESAP)

The goal of ESAP was to help alleviate problems arising from desegregation. The objective was to improve relationships of the teachers, pupils, teachers and pupils, and teachers and parents.

## VII. MANAGEMENT AND CONTROL

### Administrative

The teacher-pupil ratio in Stanton School was 1:22. School personnel included: the principal, a secretary, a counselor, an extended day program director, with a staff of thirteen, a preschool staff of eight, twenty-eight classroom teachers, two music teachers, one band instructor, a librarian, a speech therapist, a vision teacher, a resource teacher, a physical education teacher, one social worker, an attendance aide, seven educational aides, access to a physical education teacher, one social worker, an attendance aide, seven educational aides, and access to a physician and a nurse.

The physical structure is comprised of the following facilities:

Adequate yardage for physical education

Two separate classroom buildings for preschool instruction.

Parking space for 60 cars, and special facilities include:

A resource center

A materials center

A guidance center

An Extended Day office

A conference room

A clinic

An EMR classroom

A cafeteria

An auditorium

A Science laboratory

An art area

Two teacher workrooms

Two multi-purpose areas (upper and lower levels).

Regular facilities include:

A principal's office

A clerical office

Thirty-one teaching stations (Eight of which are clusters allowing for two teaching stations each).

## Instructional

Preschool, kindergarten, first and second grades and EMR class were self contained units. Grades three, four, five were organized self-contained classrooms where the open concept was utilized. Grades six and seven used the team teaching approach. Special teachers were used in music, physical education, speech and counseling.

## VIII. PROCESS

In addition to the supportive programs and personnel previously indicated examples of activities that were used to achieve the goals and behavioral objectives included the following:

A. Thirty-one teaching stations, eight of which are clusters of two stations each.

B. Counseling program ranging from screening in preschool to family-student counseling.

C. Parental involvement program to develop community ties with the school.

D. Use of the PTA as a liaison group to feed community ideas and feelings into school activities.

E. Extra concentration on reading for the fifth, sixth, and seventh grades to prepare them for high school.

## IX. EVALUATION PLAN

The projects of Stanton School were evaluated on the basis of goal achievement and behavioral objective attainment. The plan for evaluation was as follows:

A. Achievement of the goals set for Comprehensive Instructional Program (CIP) will be determined from the scores made by the pupils on diagnostic tests.

B. Rate of gain for reading and mathematics skills, social studies, and science will be determined from differences in the pre and post Metropolitan Achievement Tests (MAT) scores.

C. Parental involvement, on a volunteer basis, will be determined by checking school records.

D. Per cent of attendance improvement will be determined by checking school records.

E. Pupil attitude changes will be measured by a pre and a post attitude survey.

F. The pre and post scores on the Basecheck test will be used to determine gains made by the preschool children.

G. Breakfast program participation rate will be determined from the records of the daily meals served.

H. Teacher-Pupil Services Program performance will be determined from the monthly output measures for both the attendance aide and the social worker.

I. Cost effectiveness will be determined on a per pupil expenditure basis for each grade.

## Methodology

Evaluation of the accomplishments for the 1971-72 school year will take four approaches: (1) evaluation of the behavioral objectives, (2) evaluation of supportive programs, (3) a review of test performance in 1971-72, and (4) a longitudinal view of test data for 1970-71 and 1971-72 based on effectiveness and acceptability. Included will be comparisons of scores in reading against national norms, city-wide norms, and frequency in gain and posttest scores.

## X. FINDINGS

### Evaluation of Behavioral Objectives

A. Twenty-five per cent of the first grade pupils will successfully complete the Comprehensive Instructional Program (CIP) diagnostic reading test through C-3 with eighty-five per cent accuracy as measured by the third CIP testing period.

Only 7 per cent of the first grade achieved this objective.

B. Seventy-five per cent of the pupils in grade one will successfully complete the CIP diagnostic reading test C-3 with eighty per cent accuracy as measured by the third CIP testing period.

Only 11 per cent of the pupils achieved this objective.

C. Fifteen per cent of the pupils in grades two, three, five, six, and seven will show at least a 0.7 gain in grade level for reading skills after a period of six months of instruction.

As shown in Table 1 (see page 10) 49 per cent of the second grade, 52 per cent of the third grade, 88 per cent of the fifth grade, 23 per cent of the sixth grade and 65 per cent of the seventh grade achieved the gains. The objective was exceeded.

## TABLE 1

## FREQUENCIES OF GAINS BETWEEN PRE AND POST TESTS ON METROPOLITAN ACHIEVEMENT TESTS*

| N= | Grade | 0 or Negative Gain | | .1 to .3 | | .4 to .6 | | .7 to .9 | | 1 or better | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | Gain |
| 57 | 2 | 6 | 11 | 11 | 19 | 12 | 21 | 11 | 19 | 17 | 30 | 0.8 |
| 72 | 3 | 4 | 6 | 18 | 25 | 12 | 17 | 19 | 26 | 19 | 26 | 0.8 |
| 60 | 5 | 4 | 7 | 1 | 2 | 2 | 3 | 5 | 8 | 48** | 80 | 3.3 |
| 61 | 6 | 30 | 49 | 5 | 8 | 12 | 20 | 6 | 10 | 8 | 13 | 0.1 |
| 65 | 7 | 14 | 22 | 5 | 8 | 4 | 6 | 1 | 2 | 41*** | 63 | 1.9 |

*6 month period

**18 gains were 3 years or better.

***7 gains were in the 2-2.9 interval, 4 in the 3-3.9 interval, 1.7 in the 4-4.9 interval and 14 with 5 years or better gain.

D. Eighty-five per cent of the pupils in grades two, three, five, six, and seven will show at least a 0.5 gain in grade level for reading skills after a period of six months of instruction.

Grade five had 88 per cent achieve this gain level. The other grades did not achieve the objective, but the total reading program was commendable as shown in Table 1.

E. Fifteen per cent of the pupils in grades five through seven will show at least a 0.6 gain in grade level for social studies and science knowledge after six months of instruction.

The fifth grade had 85 per cent achievement in social studies and 83 per cent in science. The sixth grade had 31 per cent in social studies and 28 per cent in science. The seventh grade had 70 per cent in social studies and 93 per cent achievement in science. Tables 2 and 3 (see page 12 ).

F. Eighty-five per cent of the pupils in grades five through seven will show at least a 0.4 gain in grade level for social studies and science knowledge after a period of six months of instruction.

The sixth grade did not achieve this objective. They had 40 per cent in social studies and 39 per cent in science. The fifth and seventh grades achieved this objective as shown in Tables 3 and 4 (see pages 12 and 13 ).

G. Twenty-five per cent of the pupils in grades two, three, five, six, and seven will show at least a 1.0 gain in grade level for arithmetic skills after a period of six months of instruction.

Grade two with 49 per cent, grade three with 29 per cent, grade five with 49 per cent, and grade seven with 25 per cent achieved the objective. Grade six had 24 per cent. The objective was reached. This data is shown in Table 4.

H. The per cent of attendance rate will increase by at least five per cent over last year's rate.

Per cent of attendance increased by two per cent from 89.1 to 91.1. The objective was not realistic and was not achieved.

I. Dental services for pupils will increase by at least ten per cent over last year's rate.

There is no way of determining if the objective was reached.

## TABLE 2

### GAINS MADE ON SOCIAL STUDIES, SUBTEST SEVEN, OF THE METROPOLITAN ACHIEVEMENT TESTS BETWEEN PRETEST AND POSTTEST

| | .3 months Or below | | .4 - .5 Months | | 6 months Or above | |
|---|---|---|---|---|---|---|
| Grade | No. | Per Cent | No. | Per Cent | No. | Per Cent |
| 5 | 6 | 9 | 1 | 2 | 58 | 89 |
| 6 | 43 | 60 | 7 | 0 | 22 | 31 |
| 7 | 9 | 13 | 6 | 9 | 52 | 78 |
| Total | 58 | 28 | 14 | 7 | 132 | 65 |

## TABLE 3

### GAINS MADE ON SCIENCE, SUBTEST SEVEN, OF THE METROPOLITAN ACHIEVEMENT TESTS BETWEEN PRETEST AND POSTTEST

| | .3 months Or below | | .4 - .5 Months | | 6 months Or above | |
|---|---|---|---|---|---|---|
| Grade | No. | Per Cent | No. | Per Cent | No. | Per Cent |
| 5 | 7 | 11 | 5 | 8 | 53 | 82 |
| 6 | 44 | 61 | 8 | 11 | 20 | 28 |
| 7 | 4 | 6 | 1 | 1 | 63 | 93 |
| Total | 55 | 27 | 14 | 7 | 136 | 66 |

## TABLE 4

## GAINS MADE ON THE ARITHMETIC SUBTEST* OF THE *METROPOLITAN ACHIEVEMENT TESTS* BETWEEN PRETEST AND POSTTEST

| | .5 months Or below | | .6 - .9 Months | | 1 year Or above | |
|---|---|---|---|---|---|---|
| Grade | No. | Per Cent | No. | Per Cent | No. | Per Cent |
| 2 | 21 | 30 | 15 | 21 | 34 | 49 |
| 3 | 34 | 40 | 27 | 31 | 25 | 29 |
| 5 | 24 | 37 | 8 | 12 | 33 | 51 |
| 6 | 43 | 60 | 12 | 17 | 17 | 24 |
| 7 | 39 | 58 | 11 | 16 | 17 | 25 |
| Total | 161 | 45 | 73 | 20 | 126 | 35 |

*Subtest 5 in grade 2, Subtest 8 in grade 3, Subtest 6 in grades 5-7.

J. Parent involvement in school activities will increase by at least five per cent over the rate of last year.

There was an increase of 20 per cent from 25 parents in 1970-71 to 32 in 1971-72. This was an excellent increase.

## Evaluation of Supportive Program

The supportive programs each have a goal and/or objective that is related to specific needs in the school. Each should be evaluated in respect to its accomplishments in reaching their goal or objective.

### A. Comprehensive Instructional Program (CIP)

CIP had as an objective to have each pupil in grade two, three, and four gain one month for each month of instruction. Grades two and three gained .8 which was excellent. Grade four could not be measured because of different testing.

### B. Career Opportunity Program (COP)

COP had as an objective for pupils taught by a COP team to show higher gains than other pupils. Grades three and five used COP teams, and the gains in grade five were the highest in the school (3.3). Grade three did achieve well (.8) and the program objective was met.

### C. Model Cities Educational Component

#### 1. Breakfast

The goal was to provide a free, nutritional breakfast to all pupils who desired it. The program started in March and an average of 350 pupils per day participated. The objective was to help increase attendance and it increased by 2 per cent for the year.

#### 2. Preschool

The goal was to provide educationally directed day care for children of working mothers and to prepare the child for kindergarten. There were 41 children in the program. The objective was to teach basic learning skills as measured by the Basecheck test. A gain of 58 per cent was shown between pre and posttest. The criteria was 25 per cent.

### 3. Extended Day

The program had as a goal to provide enrichment activities and supervised day care before and after school. An average of 400 pupils per month took part in the program. The objective of a more positive attitude could not be measured because of testing difficulties.

### 4. Teacher-Pupil Services

This program was designed to help increase attendance through the use of attendance aides. The attendance increased two per cent for the school year.

## D. Title I

### 1. Lead Teacher

The lead teacher concentrated her activities on improving the teaching skills of all teachers in the school in the area of reading. The aides worked in all grades. Except for grade six, excellent gains were made in all grades as shown in Table 1. The posttest levels were also satisfactory as shown in Table 5 (see page16 ).

### 2. Kindergarten

One aide was used to assist the kindergarten teachers. No Metropolitan Readiness Test testing was done in this school, and it was not possible to evaluate if the pupils were better prepared for first grade.

## E. Emergency School Assistance Program (ESAP)

The goal and objective was to alleviate the problems associated with desegregation. There was no way to evaluate this program in the school.

## Evaluation of Longitudinal Data

This is an attempt to track pupil **progress** over a two-year period. Table 6 (see page 17) shows a comparison of grade level, gain and rate of gain for 1970-71 and 1971-72.

Further analysis of reading scores was made on the basis of predicted achievement for each grade level. A regression equation employing factors of attendance, mobility, socio-economic status, pupil-teacher ratio percentage of pupils passing, and pretest scores formulated predictions of posttest scores and resulting gains. A ratio of actual gain to predicted

## TABLE 5

## POSTTEST SCORE FREQUENCIES ON METROPOLITAN ACHIEVEMENT TEST

| Grade | 24 months* behind |  | 11 to 23 months* behind |  | 3 to 10 * months behind |  | Within 2 months* of grade level |  | Posttest level | Citywide level | National level |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent |  |  |  |
| 2 | - | - | 14 | 25 | 24 | 42 | 19 | 33 | 2.45 | 2.4 | 2.7 |
| 3 | 4 | 6 | 44 | 61 | 16 | 22 | 8 | 11 | 2.79 | 3.0 | 3.7 |
| 4 | 20 | 23 | 31 | 35 | 13 | 15 | 24 | 27 | 3.82 | - | 4.7 |
| 5 | 3 | 5 | 9 | 15 | 4 | 7 | 44 | 73 | 7.33 | 3.9 | 5.7 |
| 6 | 47 | 90 | 2 | 4 | 1 | 2 | 2 | 4 | 3.96 | 4.4 | 6.7 |
| 7 | 34 | 52 | 8 | 12 | 7 | 11 | 16 | 25 | 5.87 | 4.8 | 7.7 |
|  | 108 | 27 | 108 | 27 | 65 | 16 | 113 | 29 |  |  |  |

---

*National Norms.

## TABLE 6

## GRADE LEVEL, GAIN AND RATE OF GAIN
1970-71 and 1971-72

Grade Level (Posttest)

| | Grades | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| 70-71 | | 1.77 | 2.79 | 3.45 | 3.50 | 4.12 | 5.21 |
| 71-72 | | 2.45 | 2.79 | 3.82 | 7.34 | 3.96 | 5.87 |

Gain (Pre-Post)

| | Grades | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| 70-71 | | 0.36 | 0.84 | 0.79 | 0.00 | 0.12 | 0.77 |
| 71-72 | | 0.85 | 0.77 | - | 3.34 | 0.14 | 1.89 |

Rate of Gain

| | Grades | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| 70-71 | | 0.60 | 1.50 | 1.30 | 0.00 | 0.20 | 1.20 |
| 71-72 | | 1.37 | 1.24 | - | 5.39 | 0.22 | 3.04 |

gain yielded a percentage described as a gain rate of effectiveness. Another ratio of the actual posttest score divided by the national norm for the respective grade level resulted in an index of acceptability. Table 7 (see page 19) shows the changes in the gain rate of effectiveness and the index of acceptability.

The gain rate of effectiveness is excellent. Even discounting grade five as having an extra effect, the gain rate was very good. This was an improvement of 112 points over the previous year.

The index of acceptability increased by 19 points over the previous year All grades, except grade six, exceeded the predicted post. Continued increases in effectiveness will raise the acceptable level to where it should be. Overall, an excellent job was done.

## XI. COST ANALYSIS

The data presented in Table 8 (see page 20), shows the relative cost for a one grade unit of gain based upon the rate of gain for 1971-72 and the amount spent. In order to compute these costs, expenditures were taken from the June, 1972, General Funds Report, and the June, 1972, Trust and Agency Report. From these figures estimates were made of the per pupil cost from general funds and special projects (compensatory funds). These data also show the cost in compensatory funds for each unit of effectiveness - effectiveness as determined in the 1972 Effective? Acceptable? Study. The reader is cautioned that these data are not exact or finite. Broad estimates were made based upon information obtained from the school staff relative to the utilization of resources.

According to this data, there is no relationship between funds spent and the cost for one grade unit of gain. The grades with the lowest cost had the highest gains.

## TABLE 7

## READING TEST DATA FOR 1971-72

|  | Actual |  | Acceptable | Predicted | Gain |  | Gain Rate of Effectiveness |  | Index of Acceptability |  |
|---|---|---|---|---|---|---|---|---|---|---|
| Grade | Pre | Post | Post | Post | Actual | Predicted | 1971-72 | 1970-71 | 1971-72 | 1970-71 |
| 2 | 1.5 | 2.0 | 2.7 | 1.8 | 0.5 | 0.3 | 167 | 75 | 74 | 63 |
| 3 | 1.8 | 2.7 | 3.7 | 2.3 | 0.9 | 0.5 | 180 | 180 | 73 | 73 |
| 4 | 2.7 | 3.4 | 4.7 | 3.0 | 0.7 | 0.3 | 233 | 200 | 72 | 66 |
| 5 | 3.7 | 7.9 | 5.7 | 4.3 | 4.2 | 0.6 | 700 | 0 | 139 | 56 |
| 6 | 3.6 | 3.6 | 6.7 | 4.0 | 0.0 | 0.4 | 0 | - | 54 | 54 |
| 7 | 3.7 | 5.6 | 7.7 | 4.1 | 1.9 | 0.4 | 475 | 450 | 73 | 62 |
|  |  |  |  |  |  | AVERAGE | 293 | 181 | 81 | 62 |

# TABLE 8

## COST ANALYSIS OF READING GAINS BY GRADES
TOTAL AVERAGE DAILY ATTENDANCE
K-7 ADA=643

|  | GRADES |  |  |  |  |  |
|---|---|---|---|---|---|---|
|  | Second | Third | Fifth | Sixth | Seventh | Total |
| ADA | 82 | 89 | 66 | 73 | 72 |  |
| Per-Pupil Cost |  |  |  |  |  |  |
| A. General Funds |  |  |  |  |  |  |
| 1. Regular |  |  |  |  |  |  |
| a. Salary | $ 556 | $ 556 | $ 556 | $ 556 | $ 556 | $ 556 |
| b. Non-salary | 53 | 53 | 53 | 53 | 53 | 53 |
| c. TOTAL | $ 609 | $ 609 | $ 609 | $ 609 | $ 609 | $ 609 |
| 2. CIP |  |  |  |  |  |  |
| a. Salary | $ 0 | $ 0 | $ 0 | $ 0 | $ 0 | $ 0 |
| b. Non-salary | 1 | 1 | 1 | 1 | 1 | 1 |
| c TOTAL | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 |
| 3. Total General Funds |  |  |  |  |  |  |
| a. Salary | $ 556 | $ 556 | $ 556 | 556 | $ 556 | $ 556 |
| b. Non-salary | 54 | 54 | 54 | 54 | 54 | 54 |
| c. TOTAL GENERAL FUNDS | $ 610 | $ 610 | $ 610 | $ 610 | $ 610 | $ 610 |
| B. Compensatory Funds |  |  |  |  |  |  |
| 1. Model Cities |  |  |  |  |  |  |
| a. Salary | $ 138 | $ 138 | $ 138 | $ 138 | $ 138 | $ 138 |
| b. Non-salary | 3 | 3 | 3 | 3 | 3 | 3 |
| c. Total | $ 141 | $ 141 | $ 141 | $ 141 | $ 141 | $ 141 |
| 2. ESAP |  |  |  |  |  |  |
| a. Salary | $ 3 | $ 3 | $ 3 | $ 3 | $ 3 | $ 3 |
| b. Non-salary | 2 | 2 | 2 | 2 | 2 | 2 |
| c. TOTAL | $ 5 | $ 5 | $ 5 | $ 5 | $ 5 | $ 5 |

|  | GRADES |  |  |  |  |  |
|---|---|---|---|---|---|---|
|  | Second | Third | Fifth | Sixth | Seventh | Total |
| 3. Title I |  |  |  |  |  |  |
| a. Salary | $ 50 | $ 50 | $ 32 | $ 32 | $ 32 | $ 40 |
| b. Non-salary | 15 | 15 | 15 | 15 | 15 | 15 |
| c. TOTAL | $ 65 | $ 65 | $ 47 | $ 47 | $ 47 | $ 55 |
| 4. COP |  |  |  |  |  |  |
| Salary | $ 7 | $ 7 | $ 2 | $ 2 | $ 6 | $ 5 |
| 5. Total Compensatory Funds |  |  |  |  |  |  |
| a Salary | $ 198 | $ 198 | $ 175 | $ 175 | $ 179 | $ 186 |
| b. Non-salary | 20 | 20 | 20 | 20 | 20 | 20 |
| c. TOTAL COMPENSATORY FUNDS | $ 218 | $ 218 | $ 195 | $ 195 | $ 199 | $ 206 |
| C. Total Per-Pupil Cost |  |  |  |  |  |  |
| 1. General Funds | $ 754 | $ 754 | $ 731 | $ 731 | $ 735 | $ 742 |
| 2. Special Funds | 74 | 74 | 74 | 74 | 74 | 74 |
| 3. TOTAL PER-PUPIL COST | $ 828 | $ 828 | $ 805 | $ 805 | $ 809 | $ 816 |
| D. Rate of Reading Gain (Per Cent) |  |  |  |  |  |  |
| E. Projected Cost for One-Grade-Unit of Gain |  |  |  |  |  |  |
| 1. General Funds | $ 445 | $ 492 | $ 113 | $ 2,773 | $ 201 | $ 797 |
| 2. Special Projects | 159 | 44 | 36 | 886 | 65 | 232 |
| 3. TOTAL PROJECTED COST FOR ONE-GRADE-UNIT OF GAIN | $ 604 | $ 536 | $ 149 | $ 3,659 | $ 266 | $1,029 |
| F. Gain Rate of Effectiveness | 167 | 180 | 700 | 0 | 475 | 293 |
| G. Expenditure per ADA of Compensatory Funds for each Unit of Effectiveness | $1.31 | $1.21 | $ .28 | $ 0 | $ .42 | $ .85 |

## XII. CONCLUSIONS

The following conclusions were drawn after an analysis of the data was made and discussions with the principal and faculty were conducted:

A. Grade five achieved exceptionally well with 42 pupils gaining two or more years in a six month period.

B. All grades except grade six had an outstanding performance.

C. The supportive program all achieved their goals and personnel were well utilized to accomplish the program objectives.

D. The total school performed well in comparison to city-wide norms with all but the sixth grade being higher.

E. The amount of funds spent did not relate significantly to the performance of the pupils.

## XIII. RECOMMENDATIONS

The following recommendations were made to improve future performance of the pupils:

A. The program used in grade five should be used with grade six to raise their reading level.

B. The reading program should be continued in all grades to maintain the excellent gains made in 1971-72.

The principal and faculty are to be commended for an excellent overall performance.

RESEARCH AND DEVELOPMENT REPORT

Vol. VI, No. 29 May, 1973

# P. J. BRYANT ELEMENTARY SCHOOL

## 1971-72

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## I. INTRODUCTION

P. J. Bryant Elementary School is located on Georgia Avenue in the Mechanicsville community of the Model Cities Area. Residents are primarily low-income families, with 55 per cent of the pupils from families with incomes under $2,000 per year. Most pupils come from families who rent their dwellings, and the population of the neighborhood has been decreasing over the past several years. The school covers Prekindergarten to sixth grade, and the school population in 1970-71 was 354 compared to 271 in 1971-72. One of the most pressing problems is high turnover of pupils. The mobility index was .48 in 1970-71 and increased to .51 in 1971-72.

P. J. Bryant used funds and resources from support programs to broaden and strengthen existing instructional programs. These were: Comprehensive Instructional Program (CIP), Career Opportunity Program (COP) and Title I. Under the Model Cities Educational Component, the following were supplied: Breakfast, Preschool, Expanded Youth, Teacher Pupil Services and Community School.

## II. NEEDS

The identified needs of the participants was the foundation for the development of the school year plan. The goals, behavioral objectives, and critical variables were determined from and were to satisfy the identified needs. These needs were as follows:

1. For the pupils to improve their reading performance levels.
2. For the pupils to improve their mathematical performance levels.
3. For the pupils to be exposed to various enrichment experiences.
4. For the pupils to develop a more positive self-concept.
5. For parents to be more aware of and involved in school activities.
6. For the pupils to have improved health care and proper diet.
7. For the pupils to improve their school attendance habits.

## III. GOALS

The primary goals for Bryant School were to improve reading and mathematical skills, to expose the pupil to enrichment activities, and to develop the pupil as an individual. The secondary goals were as follows:

1. To improve the pupil's self-concept through successful academic achievement and growth.
2. To improve the pupil's enrichment experiences through various media, field trips, social, and cultural activities.
3. To provide day care services to all who desire it.
4. To improve parent involvement in school activities through better communication between school and home.
5. To improve the pupil's attendance habits through various activities offered by the school.

## IV. BEHAVIORAL OBJECTIVES

The behavioral objectives to be met were as follows:

1. The second and third grade pupils would show at least a 0.6 gain in grade level for reading skills on the Metropolitan Achievement Tests (MAT).
2. All pupils would show at least a 0.5 month gain in reading skills for each month of instruction on the MAT.
3. All pupils ending grade level would not be more than 1.0 below the expected ending grade level for reading skills on the MAT.
4. The per cent of attendance would increase by at least one per cent over last year's rate.

Specific goals and objectives for the supporting projects are described in Section VI, Supporting Projects.

## V. CRITICAL VARIABLES

The critical variables which were observed and measured to reflect the desired changes are as follows:

A. Reading Skills
   1. Word Attack
   2. Comprehension
   3. Vocabulary

B. Attendance Rate

C. Self-Concept

D. Parental Involvement

## VI. SUPPORTING PROJECTS

The supporting projects as well as the existing educational programs were directed toward satisfying the identified needs. At Bryant School the supporting projects were funded by the Comprehensive Instructional Program (CIP), the Career Opportunity Program (COP), the Model Cities Educational Component, and the Title I Program.

### A. Comprehensive Instructional Program (CIP)

CIP focused on diagnostic teaching of reading in grades one through three and mathematics in grades four through six. The goal was to provide the pupils with the skills in reading and mathematics for educational growth. The objective was for each pupil to gain one month for each month of instruction.

### B. Career Opportunities Program (COP)

COP was a training program for selected paraprofessionals. The goal was to up-grade paraprofessionals to certified teachers. The objective was: those pupils being taught by a COP team would show a greater gain than similar pupils not taught by a COP team. The goal was to be met through inservice training and availability of certain college courses to those in the program.

## C. Model Cities Educational Component

The Model Cities Programs offered, to schools in the Model Neighborhood Area (MNA), educational programs that would increase attendance and achievement of pupils, decrease dropouts, provide day care services, and lower adult illiteracy and unemployment. The community residents selected the programs which best suited the community needs. Bryant School participated in the following activities:

### 1. Breakfast Program

The goal of the breakfast program was to provide a free, nutritional breakfast to as many pupils as desired it. The objective was to help increase last year's attendance rate by one per cent.

### 2. Preschool Program

The Preschool Program goals were to provide educationally directed day care services to children of working mothers and to prepare the children for kindergarten and first grade. The objectives of the program were to teach the child basic learning and motor skills and to develop good group play, social, and attendance habits.

### 3. Expanded Youth Program

The Expanded Youth Program goal was to provide the pupils with an enrichment oriented day care service after school hours. The objectives were to improve the pupil's self-concept and to develop positive attitudes toward school.

### 4. Teacher-Pupil Services Program

The goal of Teacher-Pupil Services Program was to help increase the attendance rate by one per cent above the rate of last year. The objective was to improve home-school relationships. An attendance aide was used to improve attendance habits, attitudes toward school, teachers, and peers, and involve parents in school activities. The social worker handled the referral cases from the attendance aide.

### 5. Community School Program

The goals of the Community School Program were to improve employability of adults, to improve the educational level of adults, and to develop better home-school relationships. The objectives were to provide adult vocational training, to provide Adult Basic Education and General Educational Development (GED) preparation courses, to involve parents in social-recreational activities, and to develop the school setting as the focal point of community activities.

### D. Title I Program

The Title I Program was designed to provide additional educational training to those pupils found to be educationally deprived. The activity at Bryant School was:

### 1. Lead Teacher

The goal of the Lead Teacher project was to train the classroom teacher in diagnosing, prescribing, and preparing instructional procedures which would benefit the pupils. The project objective was to improve reading skills of the educationally deprived pupils.

### 2. Kindergarten Program

The goal of the kindergarten project was to provide the kindergarten teachers with aides to allow for more individualized instruction. The objective was to have the children better prepared for entry into the first grade.

## VII. MANAGEMENT AND CONTROL

### A. Administration

The teacher pupil ratio at Bryant School was one to twenty-five for the year. A reading committee consisting of the lead teacher, principal, and a teacher from each grade level was given the task of guiding the reading program. Workshops, clinics and grade level meetings were used for evaluating and improving curriculum. The primary purpose was to design an effective reading program to satisfy the needs of the pupils. Efforts were also made to develop parental involvement as a way of overcoming the cultural and educational deficiencies of the pupils and their parents.

B. Instructional

The general organization was based on the principle of self-contained classrooms with team teaching and ungraded characteristics being used. In the reading program, individualized instruction projects along with the lead teacher's program for poor achievers were used to reach each pupil according to his needs.

## VIII. PROCESS

In addition to the supportive programs and personnel previously mentioned, examples of activities that were used to achieve the goals and behavioral objectives included the following:

A. Reading committee for evaluation and modification of the reading program.

B. Special concentration on "poor achievers" by the lead teacher.

C. Use of the community school program for parental involvement.

D. Team teaching and ungraded groups to satisfy special needs of the pupils.

E. Multi-media approach using listening stations, reading machines and classroom libraries to stimulate reading.

## IX. EVALUATION PLAN

A. Instruments

1. Rate of gain for reading skills was determined from differences in the pre and post Metropolitan Achievement Tests (MAT) test scores.

2. Per cent of attendance improvement was determined by checking school records.

3. Parental involvement on a volunteer basis was determined by checking school records.

4. Pupil attitude changes were to be measured by a pre and post attitude survey.

5. The pre and post scores on the Basecheck test was used to determine gains made by the preschool children.

6. Breakfast program participation rate was determined from the records of daily meals served.

7. Teacher-Pupil Services Program performances was determined from the monthly output measures for both the attendance aide and the social worker.

8. The results and effectiveness of the Community School Program was determined from the monthly output measures.

9. Cost effectiveness was determined on a per pupil expenditure basis for each grade.

### B. Methodology

Evaluation of the accomplishments for the 1971-72 school year took four approaches: (1) evaluation of behavioral objectives, (2) evaluation of supportive programs, (3) review of test performance, and (4) longitudinal view of test data for 1970-71 and 1971-72 based on effectiveness and acceptability. Included are comparisons of scores in reading compared to national norms and city-wide norms, and frequencies in gains and posttest scores.

## X. FINDINGS

### A. Evaluation of Behavioral Objectives

1. The second and third grade pupils would show at least a 0.6 gain in grade level for reading skills.

The second grade had 62 per cent of the pupils who gained .6 or more between pre and posttest. The mean gain for the grade was 1.1. The third grade only had 4 per cent who gained .6 or more. The mean gain was .2 for the grade. This was excellent performance for the second grade and poor for the third. This is shown in Table 1.

2. All pupils would show at least a 0.5 month gain in reading skills for each month of instruction.

This would be a gain of 0.3 between pre and posttest periods, which is low expectation. In grade two, 86 per cent of the pupils achieved the objective. In grade three there were 31 per cent, grade five had 16 per cent and grade six had 45 per cent who achieved the objective. For all grades, 55 per cent achieved the objective. Although this objective was far below expected achievement, it was not reached.

## TABLE 1

## FREQUENCIES OF READING GAINS IN MONTHS MADE ON METROPOLITAN ACHIEVEMENT TESTS BETWEEN PRETEST AND POSTTEST*

| | Negative or 0.0 | | .1 to .3 | | .4 to .6 | | .7 to .9 | | .9 or More | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | Gain |
| Grade 2<br>N=21 | 0 | 0 | 3 | 14 | 5 | 24 | 6 | 29 | 7 | 33 | 1.1 |
| Grade 3<br>N=29 | 8 | 28 | 12 | 41 | 8 | 28 | 1 | 4 | 0 | 0 | 0.2 |
| Grade 5<br>N=36 | 26 | 72 | 3 | 12 | 1 | 4 | 3 | 12 | 3 | 12 | -0.2 |
| Grade 6<br>N=36 | 16 | 44 | 4 | 11 | 8 | 22 | 3 | 8 | 5 | 14 | 0.2 |

---

*Six month period.

3. All pupils ending grade level would not be more than 1.0 below the expected ending grade level for reading skills.

   Table 2 shows that only 33 pupils, or 25 per cent, were at or only ten months behind grade level. The largest group of pupils, 39 per cent, were 24 months or more behind grade level. The fifth grade had 75 per cent of the pupils 24 months or more behind and the sixth grade had 69 per cent 24 months or more behind.

4. The per cent of attendance would increase by at least one per cent over last year's rate.

   The attendance for 1970-71 was 88.7 and for 1971-72 was 88.1. This is a decrease of .6 per cent and did not reach the objective.

B. Evaluation of Supportive Programs

Each of the supportive programs have goals and objectives which are related to a specific need in the school. Each should be evaluated in respect to its accomplishment in reaching these objectives.

1. Comprehensive Instructional Program (CIP)

   In reading, CIP had a goal of achieving one month gain for each month of instruction. Grade two had 62 per cent reach the objective. Only 4 per cent of grade three reached the objective.

2. Career Opportunities Program (COP)

   COP had a goal of having pupils served by a COP team gain more than other pupils. The second grade did use the COP team and did gain more than other grades.

3. Model Cities Program

   a. Breakfast

      The goal was to improve attendance. Attendance did not improve. An average of 150 breakfasts were served each day through April and May.

b. Preschool

The goal was to provide educationally directed day care for children of mothers who work and to prepare the pupils for kindergarten. Twenty-three children were enrolled in the program which started in January of 1972. Because of the late start, due to delayed funding, it was not possible to evaluate the gains made by the children.

c. Expanded Youth

The expanded youth program did not start until February of 1972. It was supervised by the community school director and had an average of 100 participants per day. No attitude testing could be done because of the short duration of the program.

d. Teacher Pupil Services

The goal was to increase attendance in the school. No increase took place.

e. Community School

The objectives were to provide vocational training, Adult Basic Education, and provide a social-recreational program for adults. There were 88 adults enrolled in vocational classes, 12 in Adult Basic Education, and an average of 100 per month took part in other activities. Trips and parent-pupil programs enhanced the home-school relationships. The social-recreational program and the Adult Basic Education classes aided in involving parents in school activities, and the vocational classes helped 12 participants secure employment.

4. Title I

a. Lead Teacher

The lead teacher worked to improve the teaching skills of all teachers through the Reading Committee Activity. She also worked in the "Poor Achiever" area in individual instruction. Only the second grade showed appreciable gains in reading for the year.

b. Kindergarten

Aides were used to assist the teacher to better prepare the pupils for first grade. The Metropolitan Readiness Test (MRT) was given to the first grade in September of 1972 and it was found that pupils with kindergarten experiences scored 72.5, as compared to a score of 52 for pupils with no kindergarten experience. National averages after kindergarten experience is 54. The pupils were better prepared for first grade and the aides and teachers are to be commended for a good job.

## C. Review of Test Performance

The only grade that achieved well in gain was the second grade. All other grades were far below expectations. This is shown in Table 2. The majority of pupils in the school were far behind national norm on the posttest level. Table 2 shows that the majority of pupils in grades three and four are 11 to 23 months behind. The majority of pupils in grade five and six are 24 months or more behind. The school as a whole was also behind the city-wide level. The second grade is the only exception. They were above city wide and equal to national norms.

## TABLE 2

## ANALYSIS OF POSTTEST SCORES IN READING ON THE METROPOLITAN ACHIEVEMENT TESTS

| Grade | 24 Months or More Behind* |  | 11 to 23 Months Behind* |  | 3 to 10 Months Behind |  | Within 2 Months of Grade Level or Above* |  | Posttest Level | City-Wide Level | National Level |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent |  |  |  |
| Second | - | - | 1 | 5 | 13 | 62 | 7 | 33 | 2.67 | 2.4 | 2.7 |
| Third | 4 | 14 | 20 | 69 | 5 | 17 | 0 | 0 | 2.27 | 3.0 | 3.7 |
| Fourth | 7 | 30 | 15 | 65 | 1 | 4 | 0 | 0 | 3.02 | - | 4.7 |
| Fifth | 27 | 75 | 7 | 19 | 1 | 3 | 1 | 3 | 3.65 | 3.9 | 5.7 |
| Sixth | 25 | 69 | 6 | 17 | 4 | 11 | 1 | 3 | 4.18 | 4.4 | 6.7 |
| Total | 53 | 39 | 49 | 36 | 24 | 18 | 9 | 7 |  |  |  |

*National Norms

## D. Longitudinal Data

This is an attempt to track pupil progress in the school. Table 3 shows grade level, gain, and rate of gain for 1970-71 and 1971-72. Further analysis of reading scores was made on the basis of predicted achievement for each grade level. A regression equation employing factors of attendance, mobility, socio-economic status, pupil-teacher ratio, percentage of pupils passing, and pretest scores formulated predictions of posttest scores and resulting gains. A ratio of actual gain to predicted gain yielded a percentage described as a gain rate of effectiveness. Another ratio of the actual posttest score divided by the national norm for the respective grade level resulted in an index of acceptability. Table 4 shows the changes in the gain rate of effectiveness and the index of acceptability.

The gain rate of effectiveness improved in grade two only. This was not as large a gain as it appears because of the low predicted level. Although the overall gain rate improved to 98, the high figure for second grade (400) had a large influence on this average.

The index of acceptability declined from 73 to 62. Only the second grade exceeded the predicted posttest level. Overall, the mean scores ranged from .6 behind national norms in the second grade to 3.1 behind in sixth grade. This is shown in Table 4.

## TABLE 3

## COMPARISON OF POSTTEST LEVEL, GAIN, AND RATE OF GAIN 1970-71 AND 1971-72

| | Grade Level (Posttest) | | | | |
|---|---|---|---|---|---|
| Grade | 2 | 3 | 4 | 5 | 6 |
| 70-71 | 1.73 | 2.99 | 3.53 | 6.60 | 3.84 |
| 71-72 | 2.67 | 2.27 | 3.02 | 3.65 | 4.18 |

| | Gain (Pre-Post) | | | | |
|---|---|---|---|---|---|
| Grade | 2 | 3 | 4 | 5 | 6 |
| 70-71 | 0.19 | 0.57 | 0.84 | 2.63 | 0.19 |
| 71-72 | 1.06 | 0.15 | - | -0.16 | 0.21 |

| | Rate of Gain | | | | |
|---|---|---|---|---|---|
| Grade | 2 | 3 | 4 | 5 | 6 |
| 70-71 | 0.30 | 0.90 | 1.30 | 4.20 | 0.30 |
| 71-72 | 1.71 | 0.25 | - | -0.26 | 0.34 |

## TABLE 4

## READING TEST DATA FOR 1971-72

| Grade | Actual | | Acceptable | Predicted | Gain | | Gain Rate of Effectiveness | | Index of Acceptability | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Post | Post | Actual | Predicted | 1971-72 | 1970-71 | 1971-72 | 1970-71 |
| 2 | 1.7 | 2.1 | 2.7 | 1.8 | 0.4 | 0.1 | 400 | 0 | 78 | 56 |
| 3 | 1.8 | 2.0 | 3.7 | 2.3 | 0.2 | 0.5 | 40 | 120 | 54 | 78 |
| 4 | 2.8 | 3.1 | 4.7 | 3.1 | 0.3 | 0.3 | 100 | 150 | 66 | 64 |
| 5 | 3.6 | 3.4 | 5.7 | 4.0 | -0.2 | 0.4 | -50 | 371 | 60 | 114 |
| 6 | 3.6 | 3.6 | 6.7 | 4.0 | 0.0 | 0.4 | 0 | -200 | 54 | 51 |
| 7 | - | - | 7.7 | - | - | - | - | - | - | - |
| | | | | | | Average | 98 | 88 | 62 | 73 |

## XI. COST ANALYSIS

The data presented in Table 5 show the relative cost for a one grade unit of gain based upon the rate of gain for 1971-72 and the amount spent. In order to compute these costs, expenditures were taken from the June, 1972 General Funds Report, and the June, 1972 Trust and Agency Report. From these figures estimates were made of the per pupil cost from general funds and special projects (compensatory funds). These data also show the cost in compensatory funds for each unit of effectiveness -- effectiveness as determined in the 1972 Effective?...Acceptable? study. The reader is cautioned that these data are not exact or refined. Broad estimates were made based upon information obtained from the school staff relative to the utilization of resources.

According to these data, the cost for a one grade unit of gain was not related to the funds expended. The highest amount was spent in grade three, and grade two which had five times higher gains spent one-tenth as much. In relationship to effectiveness, there are no indications that funds spent influenced the effectiveness of the program.

## TABLE 5

## COST ANALYSIS OF READING GAINS BY GRADES
## TOTAL AVERAGE DAILY ATTENDANCE (ADA)
K - 6
N = 271

| | Grades | | | | |
|---|---|---|---|---|---|
| | Second | Third | Fifth | Sixth | Total |
| ADA | 28 | 37 | 37 | 40 | |
| Per Pupil Cost | | | | | |
| A. General Funds | | | | | |
| 1. Regular | | | | | |
| a. Salary | $ 878 | $ 878 | $ 878 | $ 878 | $ 878 |
| b. Non-Salary | 147 | 147 | 147 | 147 | 147 |
| 2. CIP | | | | | |
| a. Salary | 1 | 1 | 1 | 1 | 1 |
| b. Non-Salary | 1 | 1 | 1 | 1 | 1 |
| 3. Total General Funds | | | | | |
| a. Salary | $ 879 | $ 879 | $ 879 | $ 879 | $ 879 |
| b. Non-Salary | 248 | 248 | 248 | 248 | 248 |
| c. TOTAL GENERAL FUNDS | $1,027 | $1,027 | $1,027 | $1,027 | $1,027 |
| B. Special Projects | | | | | |
| 1. Model Cities | | | | | |
| a. Salary | $ 58 | $ 58 | $ 58 | $ 58 | $ 58 |
| b. Non-Salary | 2 | 2 | 2 | 2 | 2 |
| c. TOTAL MODEL CITIES | $ 60 | $ 60 | $ 60 | $ 60 | $ 60 |
| 2. E.S.A.P. | | | | | |
| a. Salary | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 |
| b. Non-Salary | 2 | 2 | 2 | 2 | 2 |
| c. TOTAL E.S.A.P. | $ 3 | $ 3 | $ 3 | $ 3 | $ 3 |
| 3. Title I | | | | | |
| a. Salary | $ 75 | $ 75 | $ 32 | $ 32 | $ 52 |
| b. Non-Salary | 1 | 1 | 1 | 1 | 1 |
| c. TOTAL TITLE I | $ 76 | $ 76 | $ 33 | $ 33 | $ 53 |
| 4. Total Compensatory Funds | | | | | |
| a. Salary | $ 134 | $ 134 | $ 91 | $ 91 | $ 111 |
| b. Non-Salary | 5 | 5 | 5 | 5 | 5 |
| c. TOTAL COMPENSATORY FUNDS | $ 139 | $ 139 | $ 96 | $ 96 | $ 116 |

## TABLE 5 (Cont'd)

| | Grades | | | | |
|---|---|---|---|---|---|
| | Second | Third | Fifth | Sixth | Total |
| C. Total Per Pupil Cost | | | | | |
| 1. General Funds | $1,027 | $1,027 | $1,027 | $1,027 | $1,027 |
| 2. Compensatory Funds | 139 | 139 | 96 | 96 | 116 |
| 3. TOTAL PER PUPIL COST | $1,166 | $1,166 | $1,123 | $1,123 | $1,143 |
| Rate of Reading Gain (Per Cent) | 171 | 25 | -26 | 34 | 51 |
| Projected Cost For One-Grade-Unit of Gain | | | | | |
| A. General Funds | $ 601 | $4,108 | | $3,021 | $2,759 |
| B. Special Projects | 81 | 556 | | 282 | 325 |
| C. TOTAL | $ 682 | $4,664 | | $3,303 | $3,084 |
| Gain Rate of Effectiveness | 400 | 40 | -50 | 0 | 98 |
| Expenditure (Per ADA) of Compensatory Funds for Each Unit of Effectiveness | $ 0.35 | $ 3.48 | $ 0 | $ 0 | $ 2.13 |

## XII. CONCLUSIONS

Based on the findings concerning pupil progress, the following conclusions were drawn:

A. Only the second grade achieved the reading objectives.

B. The COP program and the Title I kindergarten program added to the overall school program.

C. The school was behind city-wide norms and gains were unsatisfactory.

D. The gain rate of effectiveness only increased slightly and the index of acceptability decreased.

E. Amount of funds spent did not relate significantly to the performance of the pupils.

## XIII. RECOMMENDATIONS

The following recommendations are made as a result of the findings in this report:

A. Concentration must be placed on raising reading levels for all pupils.

B. Inservice training in reading must be stressed to enable all teachers to do a better job in the teaching of reading.

C. Extra effort should be made to help the fifth grade move up at least to city-wide norms for future academic success.

D. Determine the reasons that compensatory funds and supportive programs do not positively influence pupil achievement.

Word Processing Staff:  Martha Eaverson, Jane Hooper

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# I. RATIONALE

Alfred Blalock Elementary School, newly opened in the fall of 1971, is located in the northwest section of the city outside of the perimeter highway, serving the Bankhead Court Community. Approximately 1,000 pupils were enrolled in this beautiful new open school in kindergarten through seventh grade during the 1971-72 school year. The Bankhead Court area is a federal low-income housing complex, comprised of approximately 500 family units. These relatively new units were completed in the summer of 1969 necessitating overcrowded conditions and the use of a large number of portable classrooms at nearby Mayson Elementary School for two full years. Over 500 children in kindergarten through the third grade level were housed in 20 portable classrooms in the present Blalock area during the 1970-71 school year. The remaining children had occupied 21 portable classrooms located at Mayson Elementary School in addition to the 11 classrooms in the building itself prior to the opening of Blalock School.

All children enrolled in the school, except those belonging to the staff, were eligible to participate in the free lunch program. The family income levels were low and the needs of the children, both economic and academic, were pronounced. An estimated 75 per cent of the pupils came from families whose annual income level was $2,000 or less. Also, most of the children were reading at least one or more levels below their expected grade level, indicating a need for compensatory services to promote improved academic performance and improved self-image. Thus, the school was classified as a Title I school and was qualified to receive supplementary funds and additional personnel through Title I grant allocations to provide compensatory services to those pupils diagnosed as having the greatest academic needs. In addition to Title I resources, instructional assistance to the staff in the areas of reading and math, as well as limited funds for appropriate related materials and supplies, were available to the school through the local Comprehensive Instructional Program.

As members of a new school operating in an open cluster setting utilizing team teaching methods, both faculty and pupils had to adjust to numerous changes, and their program, of necessity, continuously evolved and changed throughout the year. Since the majority of the Blalock pupils, handicapped by their environment, were already reading well below their actual grade level placement even at a very early age, particular emphasis was directed toward concentration on developmental reading skills as a foundation for successful academic experiences in later grades. Thus, the prospectus focused on the instructional program in the primary grades as the basis for a continuous longitudinal study of these same pupils, examining in particular the effectiveness of the reading program as it was implemented in the second-third grade cluster.

This report will include an evaluation of the progress made toward achieving the specific objectives set forth by the faculty for the second-third grade cluster as well as a summary overview of the pupil progress made on all grade levels, including achievement data, gain-rate of effectiveness, and cost expended to achieve these gains.

## II. PUPIL NEEDS

The following needs were identified by the faculty as primary needs of the pupils in the second-third grade cluster as well as typical of the needs of all pupils in Blalock Elementary:

A. To develop basic reading skills appropriate for successful academic achievement.

B. To develop listening skills.

C. To develop social interaction patterns appropriate to the school setting.

D. To improve attendance.

E. To have parents become more aware of and supportive of their children's education.

## III. PROGRAM GOALS

In order to meet these needs, the following long range general goals were set forth to guide the school's program.

A. To provide appropriate learning activities designed to develop basic reading skills, including word attack and comprehension skills.

B. To provide learning activities designed so that the pupils can experience success, particularly in the area of reading.

C. To provide regularly a variety of activities which will allow the pupils to acquire necessary listening skills.

D. To help the pupils develop the habit of moving quietly within the cluster by defining the appropriate social behavior expected from them in various settings within the school, placing particular emphasis on their movement from one activity to another activity within the cluster.

E. To provide opportunities wherein pupils will be motivated to listen to oral contributions made by their classmates and to class discussions without unnecessary interruption.

F. To increase pupils' school attendance by analyzing absenteeism patterns and the causes of their absences, subsequently developing a plan of action with particular emphasis on those pupils with chronic absence records.

## IV. BEHAVIORAL OBJECTIVES

The following behavioral objectives were formulated to serve as a basis for evaluating the extent to which the goals of the program had been accomplished in terms of pupil progress.

A. As a group, the pupils in the second-third grade cluster will increase their total reading scores on the Metropolitan Achievement Tests (MAT) at the rate of at least one month's gain for each month of instruction between pretest and posttest.

B. Of those pupils in the second-third grade cluster, 90 per cent will demonstrate their listening capabilities by following one and two-step directions given orally by their teacher, with 90 per cent accuracy, as measured by a paper and pencil test.

C. During scheduled activity changes, an average of at least 85 per cent of the second-third grade cluster pupils will walk quietly to their next activity within the cluster, be seated and ready to begin the new activity within a maximum time limit of five minutes, as measured by systematic observation.

D. The average per cent of attendance will be increased to 90 per cent by the end of the 1971-72 school year.

E. The attendance of those pupils identified as chronic absentees will be increased at least 10 per cent, determined by their average rate of attendance during the months of March, April, and May, 1972, compared to their average rate of attendance during the months of September, October, and November, 1971.

The following objectives related specifically to the Career Opportunities Program (COP):

F. Those pupils taught by COP teams in the fourth-fifth grade cluster will show significantly greater annual gains in reading than similar pupils not taught by COP teams.

G. Those pupils taught by COP teams in the fourth-fifth grade cluster will make an annual academic gain of one year, as measured by their reading scores on the Metropolitan Achievement Tests (MAT).

H. Those pupils taught by COP teams in the fourth-fifth grade cluster will show a more significant gain in self-concept as measured by the Self-Appraisal Inventory than will similar pupils taught in self-contained classrooms.

I. As a COP school, Alfred Blalock will have a more open climate than will schools that do not have COP teams.

## V. CRITICAL VARIABLES

The following critical variables were identified by the school and the second-third grade cluster team as areas in which they proposed to make definite changes:

A. Basic reading skills

  1. Word attack skills

  2. Comprehension skills

B. Listening skills

    1. Auditory decoding skills

C. Cluster movement patterns

    1. Quietness

    2. Orderliness

    3. Timing

D. Attendance

    1. Overall attendance

    2. Chronic absenteeism

E. Self-concept

F. School climate.

## VI. SUPPORTIVE PROGRAMS

There were various supportive programs operating within Blalock Elementary School directly relating to the identified needs of the pupils, supporting the goals of the school. These supportive programs provided supplementary personnel, services, and funds above and beyond those supplied through the regular school program. Although these programs were unique within each school setting, they were characterized by program-wide objectives which became the school's objectives when the program was implemented in that school.
A brief description of the supportive programs and how they were implemented at Blalock, including their related personnel and services, follows:

### A. The Title I Program

Title I provided the following personnel and compensatory services: (1) three lead teachers, (2) one social worker, (3) twelve educational aides, and (4) limited funds for materials and supplies.

1. Lead Teacher -- One lead teacher was assigned to each of the four clusters. Three of these lead teachers were paid from Title I funds and one was paid from general funds. Their roles within each cluster may have varied somewhat, but a representative example of some of their main duties as defined by the second-third grade cluster lead teacher included the following:

   a. Provided team leadership, coordinating the efforts of the team and directing instructional planning within the team.
   b. Served as liaison between the team and the administrative staff, resource personnel, and research personnel, keeping these lines of communication open and flowing in both directions.
   c. Coordinated all testing activities within the cluster.
   d. Supervised the activities of the educational aides.
   e. Instructed small groups of children.
   f. Generated team spirit and cohesiveness.

2. Social Worker -- The social worker who served Blalock Elementary School was assigned to the Bankhead Court Community, serving as liaison between the home, school, and community. Approximately 70 per cent of his time was devoted to Blalock; the remaining portion was spent working with the high school pupils from the Bankhead Court Community. In implementing his role, the social worker assumed the following duties:

   a. Coordinated parental involvement activities.
   b. Made home visits.
   c. Contacted community agencies.
   d. Arranged parent-teacher conferences.
   e. Investigated attendance problems.
   f. Assisted administrators and school personnel with pupil personality behavior problems.
   g. Investigated problems concerning child neglect and insufficient guardianship.
   h. Made referrals when necessary to the Juvenile Court.

3. Educational Aides -- Each of the twelve educational aides assigned to Blalock functioned as a member of one of the cluster teams. Two of the aides were members of the kindergarten team, three were members of the

first grade team, three were members of the second-third grade team, three were members of the fourth-fifth grade team, and one was a member of the sixth-seventh grade team. Within the clusters, the aides worked with small groups of children under the direction of a teacher, concentrating on the reinforcement of skills. They also assisted teachers with large group activities as well as helping with necessary record keeping tasks and mimeographing of materials if necessary.

Two of the educational aides were Career Opportunities Program (COP) participants, enrolled part-time in college classes at either Clark College, Georgia State University, or Morris Brown College. COP is a training program for selected paraprofessionals, leading toward professional certification. Tuition was provided for the trainees, allowing them to earn up to forty-five quarter hours of college credit during a period of twelve months. The trainees were required to work as members of an instructional team, performing instructional tasks and participating in planning activities. One of the COP aides worked primarily with fourth grade pupils and the other worked with a small group of fifth grade pupils under the close supervision of the remedial reading teacher.

4. Limited Funds -- Title I funds were used to purchase the Sullivan Programmed Reading Program, a comprehensive individualized approach to reading. This program was used as one of the main reading programs in the fourth-fifth grade cluster with pupils who were identified as being able to potentially benefit from this type of approach. There were no difficulties reported concerning either the ordering or receiving of these materials.

## B. The Comprehensive Instructional Program (CIP)

The Comprehensive Instructional Program was a locally funded program, focusing on the area of reading in grades one through three and on the area of math in grades four through six. Through this program, pupils in the first, second, and third grades were diagnostically evaluated in the area of reading on their own level of proficiency three times throughout the year to aid individual teachers in prescriptive teaching. Pupils in the fourth, fifth, and sixth grades were diagnostically evaluated in math during the fall.

Individual assistance was provided to any teacher upon request by Area IV resource personnel, but each of the lead teachers was responsible for designing and coordinating an effective program in reading and math within their own clusters.

The first grade cluster lead teacher had participated in the summer CIP inservice courses in reading along with two of the second-third grade cluster teachers. Limited funds earmarked for related supplementary instructional materials and supplies were also available to the school and used to purchase supplementary reading materials for the first three grades during the year.

The overall goal of this program in all schools was one month's gain in reading scores in grades one through three for each month of instruction and one month's gain in math scores for each month of instruction in grades five and six.

## VII. MANAGEMENT AND CONTROL

### School Organization

Blalock Elementary School was designed incorporating the open school concept. As an open school it was comprised of large areas of unbroken space, each area designed to accommodate a cluster of children. The administrative services of both a principal and an assistant principal were necessitated, due to the size of the pupil population, which was larger than anticipated when the school was first planned. To ease overcrowded conditions in this brand new school, the addition of six portable classrooms was necessary in the beginning of the year, each occupied by one self-contained class of pupils in grades two through seven.

Blalock's pupil population was divided among four main clusters according to grade levels. The clusters ranged in size from 139 pupils in the first grade cluster to 279 pupils in the fourth-fifth grade cluster. Cluster teaching teams were composed of five to nine team teachers plus a lead teacher who was assigned to each of the four main cluster teams and assumed responsibility for overall coordination of the instructional program within the cluster. Although the six portables housed self-contained classrooms, they were in some respect attached to the main clusters and functioned as an integral part of the cluster. The pupils participated in many cluster activities and teachers planned together at various times throughout the year. The team of teachers who worked within the actual open clusters was to some extent more team conscious, but teachers in the portables also did some team teaching in the areas of reading and math. Teachers in the portables were assigned on the basis of their individual preferences. Pupils were assigned either on the basis of ability, as many of the better performing children were in these classrooms, or because either a teacher or parent felt that the child would have difficulty adapting to the open classroom setting; so in reality the grouping was somewhat heterogeneous even in these self-contained classrooms. Team teaching helped the teachers group more homogeneously for certain skill areas.

In addition to the four main clusters and the six portables there was a kindergarten cluster comprised of approximately 68 pupils and an instructional team of two teachers and two educational aides. In all, 34 regular teachers staff the open clusters and the portable classrooms. Their efforts were supported and enhanced through services provided by the remaining professional staff, including two librarians, teachers in the areas of music, art, remedial reading, band, physical education, speech, sight, and hearing, a social worker, and the Area IV resource personnel. In addition, a social-living cluster staffed by two teachers trained in special education was designed as a skills resource room. The social-living cluster program served the pupils identified as possible educable mentally retarded children. The major portion of the day for these children included participation in the regular activities within the clusters, but in addition they also participated daily in this special skills program, specifically designed to meet their particular needs.

One concern of the faculty that was identified during the school year was the need for a program for pupils identified as emotionally disturbed children, since they felt there were a large number of children in the school with emotional problems and these children found it difficult to participate in the regular program.

In spite of the portable classrooms, crowded conditions prevailed during the year. Testing conditions were far from ideal. In the first grade cluster, small group activities had to be held in the hall and in the wet area due to lack of sufficient space. In the second-third grade cluster, reading groups were set up in the hall and thus confronted with continual disturbance problems from people trying to pass through the clusters. Crowded conditions in the sixth-seventh grade cluster were augmented even more in the spring when one of the portable classrooms burned and the pupils had to be relocated in the open cluster area.

The lack of sufficient team planning time was another concern expressed by the faculty. Although each teacher was allocated approximately 45 minutes of planning time during the day, it was extremely difficult or impossible for all team members to plan together as a group except after school, due to the large size of the clusters and the number of teachers who would need to be released simultaneously for team planning. Consequently, all cluster meetings were held either before or after regular school hours.

No obvious staffing problems were experienced initially or during the year. Absenteeism was somewhat of a problem among the educational aides in particular, due to personal or family illnesses or problems. One regular teacher also experienced an extended illness but supply teachers helped to maintain continuity in the instructional program in the interim.

## Inservice Training

Planning during the summer months prior to the opening of the school was culminated in a five week inservice training workshop, open to all staff who were able to attend, focusing on team teaching strategies within the open cluster setting. Fifteen of the twenty-nine classroom teachers who engaged in team teaching within the clusters attended this workshop as well as three of the four lead teachers.

Throughout the year, large faculty programs were held monthly, supplemented with individual cluster meetings. These meetings were either administrative or professional in scope. During the year, one of the consultants who had worked with the faculty during the summer workshop returned to the school to assist the faculty with the implementation of their instructional program within the open cluster design.

## Organizational Climate

Organizational climate has been used to describe the "personality" of an environment. A study of the organizational climate of a school may provide insight into possible characteristics of the environment operating within that school's organizational structure.

In an effort to obtain the data relative to the school climate as perceived by the teachers, a randomly selected sample of teachers in 26 Title I elementary schools, including Blalock, was requested in April to complete, anonymously, the Organizational Climate Index (OCI), an instrument developed by George Stern of Syracuse University. The OCI is comprised of 300 true or false items which, when compiled, provide data from the respondents on the 30 scales defined in this section. Analysis of these data produces six OCI factors which are called first-order factors. The initial five first-order factors, including intellectual climate, achievement standards, practicalness, supportiveness and orderliness, describe a second-order factor called development press, which is the capacity of the organizational environment to support, satisfy, or reward self-actualizing behavior. The remaining first-order factor, impulse control, describes another second-order factor called control press, which refers to those characteristics of the environment which inhibit or restrict personal expressiveness.

The OCI was not administered as a test or a criterion measure in the judgemental or evaluative sense. Rather, its intent was to provide feedback on the school climate as a basis for analysis and discussion by the school faculty and to provide baseline data for a longitudinal study, examining fluctuations and determining if there is any relationship between school climate and pupil achievement.

## DEFINITIONS OF SCALES FROM WHICH DEVELOPMENT PRESS AND CONTROL PRESS ARE DERIVED IN THE ORGANIZATIONAL CLIMATE INDEX

1. Abasement-assurance: self-deprecation versus self-confidence.
2. Achievement: striving for success through personal effort.
3. Adaptability-defensiveness: acceptance of criticism versus resistance to suggestion.
4. Affiliation-rejection: friendliness versus unfriendliness.
5. Aggression-blame avoidance: hostility versus disorganization.
6. Change-sameness: flexibility versus routine.
7. Conjunctivity-disjunctivity: planfulness versus organization.
8. Counteraction-inferiority avoidance: restriving after failure versus withdrawal.
9. Deference-restiveness: respect for authority versus rebelliousness.
10. Dominance-tolerance: ascendance versus forbearance.
11. Ego achievement: striving for power through social action.
12. Emotionality-placidity: effort versus restraint.

13. Energy-passivity: effort versus inertia.
14. Exhibitionism-inferiority avoidance: attention-seeking versus shyness.
15. Fantasied achievement: daydreams of extraordinary public recognition.
16. Harm avoidance-risk-taking: fearfulness versus thrill seeking.
17. Humanities-social sciences: interests in the humanities and the social sciences.
18. Impulsiveness-deliberation: Impetuosity versus reflection.
19. Narcissism: vanity.
20. Nurturance-rejection: helping others versus indifference.
21. Objectivity-projectivity: detachment versus superstition (AI) or suspicion (EI).
22. Order-disorder: compulsive organization of details versus carelessness.
23. Play-work: pleasure-seeking versus purposefulness.
24. Practicalness-impracticalness: interest in practical activities versus indifference.
25. Reflectiveness: introspective contemplation.
26. Science: interest in the natural sciences.
27. Sensuality-puritanism: interest in sensory and aesthetic experiences.
28. Sexuality-prudishness: heterosexual interests versus inhibitions of heterosexual interests.
29. Supplication-autonomy: dependency versus self-reliance.
30. Understanding: intellectuality.

The following are the six first-order factors and their definitions:

A. Development Press

1. Intellectual Climate -- This factor describes a concern with intellectual activity, social action, and personal effectiveness. It is based on the scales for humanities, social science, science, exhibitionism, and change. A school that scores high on this factor is one in which there is a high degree of intellectuality, heterosexual interests, flexibility, and attention seeking.

2. Achievement Standards -- This is the factor reflecting press for achievement. Schools high on this factor stress hard work, perseverance, and a total day-by-day commitment to institutional purposes. It is defined by counteraction, energy, achievement, emotionality, and ego achievement.

3. Practicalness -- This factor suggests an environmental dimension of practicality tempered with friendliness. It is defined by practicalness and nurturance. A school that scores high on this factor is one in which the teachers feel there is a high interest in practical activity and a desire for helping others.

4. Supportiveness -- This factor deals with aspects of the organizational environment that respect the integrity of the teacher as a person, but the implication is that dependency needs must be supported rather than personal autonomy emphasized. It might be considered a measure of democratic paternalism. The scales defining it are assurance, tolerance, objectivity, affiliation, blame avoidance, conjunctivity, supplication, harm avoidance, and nurturance. A school that scores high on this factor is one in which the teachers feel a high degree of self-confidence, friendliness, and planfulness.

5. Orderliness -- The components of this factor are concerned with the press for organizational structure, procedure, orderliness, and a respect for authority. Conformity to community pressures and an effort to maintain a proper institutional image probably are also concommitants of a high score on this factor. It is based on order, narcissism, adaptability, conjunctivity, deference, and harm avoidance. A school that scores high on this factor is one in which the teachers feel there is a compulsive organization of details, acceptance of criticism, respect for authority, vanity, and planfulness.

B. Control Press

In addition to the reflection of factors 1 and 2 under "development press", control press involved:

Impulse Control -- This factor implies a high level of constraint and organizational restrictiveness. There is little opportunity for personal expression or for any form of impulsive behavior. It is based on the following scales: work versus play; prudishness versus sexuality; aggression versus blame avoidance; impulsiveness versus deliberation; emotionality versus placidity; and exhibitionism versus inferiority avoidance. Before conversion, a low score would indicate an open climate

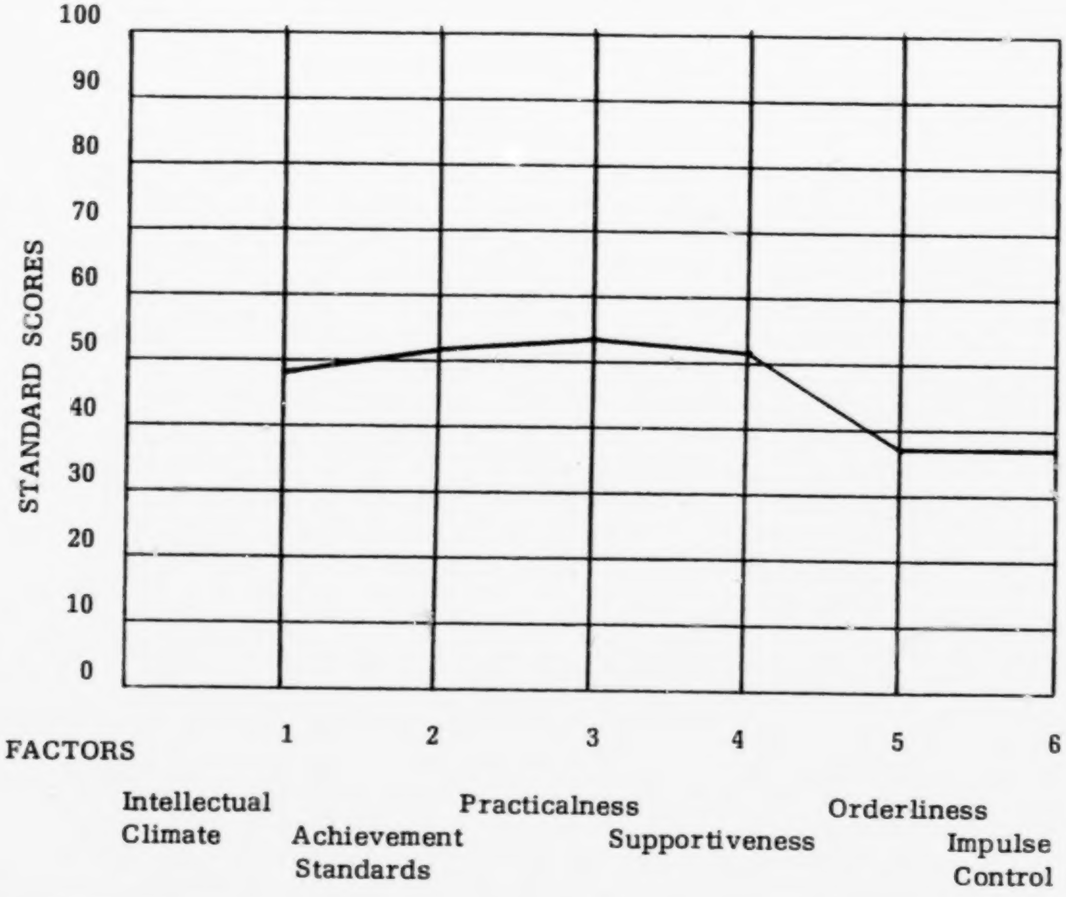
> on this factor. A school that scores high on this factor, after score conversion, is one in which the teachers feel there is a high degree of purposefulness, heterosexual interests, hostility as opposed to disorganization, impetuosity as opposed to reflection, expressiveness, and restriving after failure.

Blalock School's profile is presented on Chart 1. The OCI scores were converted to standard scores; the mean score is 50 and the standard deviation is 10. After conversion, the higher the score on all six factors, the more open the climate. As indicated by the Chart, it appeared that the teachers at Blalock perceived the climate at their school to be open with reference to the first-order factors of intellectual climate, achievement standards, practicalness, and supportiveness. According to the definitions of these factors, the organizational structure of the school supported intellectual activity, stressed hard work and perseverance, promoted interest in practical activity and concern for helping others, and displayed respect for teachers as individuals.

In contrast to the openness exhibited on the first four factors of the OCI, the teachers rated their school climate as closed with reference to orderliness, indicating, at least from their point of view, a need for more planfulness, orderliness, organization and respect for authority, and closed in reference to impulse control, implying that there were few opportunities for self-expression. Among the 26 schools participating in this study, Blalock's rank in reference to both of these factors was very low, a rank of 25 in orderliness and a rank of 24.5 in impulse control. With reference to the remaining factors of intellectual climate, achievement standards, practicalness, and supportiveness, Blalock's standard scores were among those in the top half of all the schools included in the study.

## CHART 1

## SCHOOL PROFILE OF STANDARD FACTOR SCORES ON THE ORGANIZATIONAL CLIMATE INDEX



# VIII. PROCESS

In addition to the supportive programs, personnel, and services previously discussed, examples of the types of activities that were implemented to meet pupil needs and achieve school goals included the following with particular emphasis on the second-third grade cluster:

## A. Instructional

Pupils were homogeneously grouped within the clusters according to teacher observations and test results. In the second-third grade cluster, approximately 210 pupils were divided into 8 small base groups. This group remained constant for the usual morning record keeping tasks and also for social studies and science instruction in the afternoon. Approximately two and one-half hours were devoted to language arts activities daily. Half of this was devoted to large group activities and half to small group instruction. There were two large groups and six small groups operating simultaneously so that each child was exposed to a variety of direct reading and language arts experiences within the small and large groups as well as two different teachers in these subject areas.

After pupils' reading levels were assessed, a variety of reading materials felt to be appropriate for their needs were utilized in the various groups, including the Scott, Foresman Reading System, the Houghton Mifflin Basal Series, the Sullivan Programmed Reading Materials, the Science Research Associates (SRA) Reading Lab Material, the Listen and Do Consonant and Vowels Series, and the Talking Alphabet. Specific instructional objectives were written in behavioral terms in all subject areas, including word analysis skills, language skills, math skills, social science skills, and science skills. In general, the pupils were not academically grouped across grade levels, even within the cluster.

Those pupils identified as probable educable mentally retarded children participated daily in a special skills resource room program, designed to meet their specific needs.

Pupils in the upper grades, fourth through seventh grade, who displayed difficulty in benefiting from regular cluster instruction and were reading two or more years below their actual grade level were referred to participate in the remedial reading program staffed by a teacher trained specifically in this area. Pupil reading difficulties were carefully diagnosed, followed by intensive individual or small group prescriptive teaching. An effort was made to use materials in these remedial classes that were somewhat different from those used in the clusters. Class periods ranged from forty-five minutes to one hour twice weekly. The groups were very small, generally limited to four pupils at one time. Conferences with the teachers of those pupils who were involved in the program were held regularly to insure continuity and follow-up in instruction in the regular cluster setting.

Skills in the areas of auditory acuity and auditory decoding were emphasized by the cluster teachers continuously through listening games and daily practice in these areas.

Since the pupils had to move from group to group within the cluster frequently throughout the day, a specific "traffic pattern" was defined for them, as well as clear-cut rules designed to reduce confusion and the amount of time necessary to complete each move. Once a routine pattern was established, it was consistently maintained during the year.

## B. Attendance

The school social worker received attendance referrals from the teachers. Each cluster submitted a monthly summary of absences by pupils which provided an individual cumulative record by the end of the year. On this same form, reasons for the absences were coded and summarized monthly. Consequently, chronic attendance problems and the reason for absences could be pinpointed readily and efforts made to minimize some of these problems whenever possible.

## C. Parental Involvement

Parents were invited to become involved in the school program and their child's educational development in a variety of ways throughout the year. Invitations were extended to them to come to see the new school and visit any classroom, either to assist in any way possible or just to observe the daily activities. The school was always "open" to parents. Parents were included on field trips and encouraged to lend their needed services in the health program. Cluster meetings were held to promote better communications between parents and teachers and also to discuss with parents their child's school adjustment. Some of these meetings were held in the evening to accommodate the schedules of more parents.

A steering committee, composed of parents, school personnel and representatives of local community agencies, spearheaded school-community cooperative projects, sponsoring programs to foster positive school-community interaction. This committee was particularly community oriented, organizing a clean-up campaign as well as other programs to improve the physical attractiveness and promote the general well-being of the Bankhead community.

## IX. EVALUATION INSTRUMENTS

The following tests and instruments were used to evaluate the progress of the pupils at Blalock Elementary School:

A. The Metropolitan Achievement Tests (MAT) were administered to pupils in the second, third, fifth, sixth, and seventh grades in October, 1971, and to pupils in the first through seventh grades in April, 1972.

B. A simple pen and pencil test, measuring pupils' ability to listen to and follow simple one and two-step oral directions, was administered to second-third grade cluster pupils in February, 1972, and again in May, 1972.

C. The Self-Appraisal Inventory (SAI), an instrument designed to assess the pupil's self-concept along the following four dimensions: (1) general, (2) family, (3) peer, and (4) scholastic, was administered in May, 1972, to a sample group of fourth-fifth grade cluster pupils who were assisted by a COP aide.

# X. FINDINGS

Evaluation of the accomplishments of the instructional program of Alfred Blalock School took two approaches: (1) evaluation of stated behavioral objectives, and (2) an overview of test performance in 1971-72. The evaluation of stated objectives at times was supplemented by more comprehensive information in order to provide additional insight into the progress of the school towards its goal. Included in the overview of 1971-72 test results was information from all grade levels in the subject area of reading with special attention to the effects of compensatory programs. Further analysis of performance was based on attendance, mobility, predicted gains, and national norms.

## Evaluation of Behavioral Objectives

A. As a group the pupils in the second-third grade cluster will increase their total reading scores on the Metropolitan Achievement Tests (MAT) at the rate of at least one month's gain for each month of instruction between the pretest and the posttest.

This objective was based on the pupils' identified need for the development of basic reading skills. To provide for these needs the faculty established an instructional program to provide pupils with activities at their tested levels of proficiency. The focus of the behavioral objective on the pupils of the second-third grade cluster was to provide an illustration of the progress of the overall school program. In Table 1 are statistics relating the results of pupil performance on the Metropolitan Achievement Tests (MAT) whereas the objective called for one month of gain for each month of instruction, i.e. a six month gain, pupils of both grades averaged lower gains on both the skills and the comprehension subtest. In the second grade approximately one-third of the pupils achieved a six month gain in one or more subtest. Mean gains for the entire class, however, averaged four or five months, including an average gain of five months on the total reading subtest of the MAT. This is only one month behind the gain stated in the objectives. In the third grade, also, approximately one-third of the pupils gained six months or more on at least one of the reading subtests. Mean gains ranged from two months in word knowledge to five months in word analysis with

## TABLE 1

### RESULTS OF READING SUBTESTS OF THE METROPOLITAN ACHIEVEMENT TESTS FOR SECOND-THIRD GRADE CLUSTER

|  | N | Mean Pretest | Mean Posttest | Mean Gain | Mean Rate of Gain | Per Cent Gaining 6 Months or More |
|---|---|---|---|---|---|---|
| Second Grade |  |  |  |  |  |  |
| Word Knowledge | 88 | 1.4 | 1.9 | .5 | .82 | 38.6 |
| Word Analysis | 88 | 1.3 | 1.7 | .4 | .71 | 22.7 |
| Reading | 89 | 1.4 | 1.8 | .4 | .64 | 27.0 |
| Total Reading | 88 | 1.4 | 1.9 | .5 | .75 | 33.3 |
| Third Grade |  |  |  |  |  |  |
| Word Knowledge | 96 | 2.1 | 2.3 | .2 | .36 | 15.5 |
| Word Analysis | 99 | 1.8 | 2.3 | .5 | .76 | 37.4 |
| Reading | 95 | 1.9 | 2.3 | .4 | .61 | 35.8 |
| Total Reading | 97 | 2.0 | 2.3 | .3 | .48 | 26.0 |

total reading showing a mean gain of only three months or one-half of the desired objective. It should be noted that pupils of both grades began the year behind grade level with second graders approximately four months behind and third graders behind by over one year. Generally speaking, pupils of the second grade came very close to meeting the objective that was set for them but pupils of the third grade did not.

B. Of those pupils in the second-third grade cluster, 90 per cent will demonstrate their listening capabilities by following one and two-step directions given orally by their teacher, with 90 per cent accuracy, as measured by a paper and pencil test.

This objective was designed to measure the program's ability to develop listening skills in the pupils. Development of these skills aimed to improve class work and test performance through increased ability to follow directions. Only 63 per cent of the pupils were able to complete the test with 90 per cent accuracy, falling short of the objective by 27 per cent. An additional 13 per cent of the pupils scored between 80 and 90 per cent. While the objective was not met in its detail, 92 per cent of the pupils were able to complete the test with at least a grade of 60 per cent. The exact breakdown is shown in Table 2.

TABLE 2

PERCENTAGES OF SCORES ON LISTENING CAPABILITIES TEST ADMINISTERED TO PUPILS IN THE SECOND-THIRD GRADE CLUSTER

| Total Number | Scores | | | | |
|---|---|---|---|---|---|
| | 0-50 | 60 | 70 | 80 | 90-100 |
| 159 | 8.0 | 8.0 | 8.0 | 13.0 | 63.0 |

C. During scheduled activity changes, an average of at least 85 per cent of the second-third grade cluster pupils will walk quietly to their next activity within the cluster, be seated and ready to begin the new activity within a maximum time limit of five minutes, as measured by systematic observation.

The fulfillment of the pupils' need to adapt to the cluster situation was measured by Objective C. Pupils were observed for appropriate behavior between cluster activities in February and May. Observations in February were made only to determine pupil progress at that time and not as evaluative data. As shown in Table 3, the data indicated that only 73 per cent of the pupils were displaying the desirable behavior in May. Although this figure did not meet the objective, it was an improvement of 31 per cent over the February observations.

TABLE 3

RECORD OF PUPILS IN THE SECOND-THIRD GRADE CLUSTER EXHIBITING ACCEPTABLE BEHAVIOR BETWEEN CLASS ACTIVITIES

| Month | Total No. of Pupils | Pupils Exhibiting Acceptable Behavior Number | Pupils Exhibiting Acceptable Behavior Per Cent |
|---|---|---|---|
| February | 211 | 88 | 42.0 |
| May | 215 | 156 | 73.0 |

D. The average per cent of attendance will be increased to 90 per cent by the end of the 1971-72 school year.

As a new school, Blalock Elementary had no overall record of attendance for its pupils in previous years. However, attendance reports for the beginning of the year showed that a large number of absenteeisms could be anticipated. Thus, the objective of 90 per cent attendance was designed.

Pupil attendance remained relatively the same for the first three reporting periods with percentages of 89, 88, and 90 respectively. As the year progressed, however, attendance fell somewhat as shown by percentages of 86, 86, and 83 for the last three reporting periods. For the entire year the accumulated percentage of attendance was only 86, four points less than the stated objective. Poor attendance was reported for every grade level as shown in Table 4.

TABLE 4

PER CENT OF PUPIL ATTENDANCE
1971-72

| GRADE | Reporting Period 1 | 2 | 3 | 7 | 8 | 9 | YEARLY |
|---|---|---|---|---|---|---|---|
| K | 90 | 88 | 93 | 91 | 88 | 88 | 89 |
| K | 68 | 77 | 89 | 80 | 80 | 76 | 76 |
| 1 | 87 | 87 | 90 | 86 | 88 | 84 | 86 |
| 2 | 88 | 89 | 91 | 86 | 87 | 85 | 87 |
| 3 | 87 | 90 | 88 | 86 | 87 | 83 | 86 |
| 4 | 89 | 89 | 90 | 88 | 85 | 82 | 87 |
| 5 | 93 | 90 | 92 | 88 | 88 | 82 | 88 |
| 6 | 91 | 87 | 90 | 87 | 84 | 84 | 87 |
| 7 | 89 | 87 | 87 | 85 | 85 | 84 | 86 |
| TOTAL | 89 | 88 | 90 | 86 | 86 | 83 | 86 |

E. The attendance of those pupils identified as chronic absentees will be increased at least 10 per cent, determined by their average rate of attendance during the months of March, April, and May, 1972, compared to their average rate of attendance during the months of September, October, and November, 1971.

Fifteen pupils were identified as chronic absentees. Upon investigation, the social worker found that the causes of the pupils' truancy were largely due to parental apathy and neglect. For the first three attendance periods, these pupils averaged only 60 per cent attendance. Despite the efforts of the social worker, overall attendance for the same children decreased by nine per cent for the last three reporting periods. Only four pupils increased their attendance at that time but the percentage of increase was less than seven per cent in every case.

Overall education of the Career Opportunities Program can be found in the final report for the project. Evaluation of COP, as it was implemented at Blalock Elementary School, was incomplete because of testing difficulties, but available data is presented below.

F. Those pupils taught by COP teams in the fourth-fifth grade cluster will show significantly greater annual gains in reading than similar pupils not taught by COP teams.

G. Those pupils taught by COP teams in the fourth-fifth grade cluster will make an annual academic gain of one year, as measured by their reading scores on the MAT.

Evaluation of Objective F was made impossible by the lack of a control group. All fourth and fifth grade pupils in the school were taught by the same COP team. The aides of the team worked mostly with fourth grade pupils and a small group of fifth grade pupils. Since the fourth grade was tested only once during the year, no gains were recorded. The small group of fifth grade pupils with whom the aide worked averaged less than a month gain in reading compared to a mean gain of 4.5 months for the entire fifth grade. From these data it is obvious that the pupils also could not have met Objective G which required a mean gain of at least six months.

H. Those pupils taught by COP teams in the fourth-fifth grade cluster will show a more significant gain in self-concept as measured by the Self-Appraisal Inventory than will similar pupils taught in self-contained classrooms.

In order to measure this objective a sample of pupils from the cluster were administered the Self-Appraisal Inventory (SAI) in Spring, 1972. Since no self-contained classrooms existed in the school, comparisons were not available, but additional data can be found in the COP final report. Scores on the SAI were 64 per cent positive with the least positive score being made on the peer-related subtest and the most positive score being made on the school-related subtest. Mean scores are listed in Table 5.

## TABLE 5

## THE PERCENTAGES OF FAVORABLE RESPONSES ON THE SELF-APPRAISAL INVENTORY FOR PUPILS IN THE FOURTH-FIFTH GRADE CLUSTER TAUGHT BY A CAREER OPPORTUNITIES PROGRAM INSTRUCTIONAL TEAM -- SPRING, 1972

| | Peer | Family | School | General | Overall |
|---|---|---|---|---|---|
| Fourth-Fifth Grade Cluster N=24 | 56.5 | 67.9 | 70.8 | 61.5 | 64.2 |

I. As a COP school, Alfred Blalock will have a more open climate than will schools that do not have COP teams.

The nature of the school climate, as measured by the Organizational Climate Index, was fully described in Section VII, Management and Control, under Organizational Climate. Further comparisons can be found in the COP final report.

Overview of Test Performance: 1971-72

Observations of standardized test results for pupils of grades two through seven described the success of the general school program as it incorporated the compensatory services of Title I and the Comprehensive Instructional Program. Both of these special programs aimed to increase the reading achievement of the pupils through teacher in-service training, classroom assistance from educational aides, and/or additional equipment, materials, and supplies. To attempt to differentiate between the effects of the individual programs would be an impossibility since all programs were coordinated to the best advantage of the pupils.

Gains and related statistics on the reading comprehension subtest of the MAT are shown by grade level in Table 6. Although the period between tests was six-months, only the seventh grade was able to show a six-months average gain. The frequencies of gain indicated, however, that this commendable mean gain was reached by only 37 per cent of the seventh grade pupils while 39 per cent made zero or negative gains. Such a wide distribution of achievement causes a great deal of concern about the structure of the reading program for those pupils. Additional concern arises when observing that the sixth grade pupils of the same cluster grouped predominantly around the negative end of the scale. Pupils of grades two, three, and five averaged about four months gain with grades three and five showing similar groupings at the extreme ends of the scale.

## TABLE 6

## FREQUENCIES OF GAIN SCORES ON THE READING SUBTESTS OF THE METROPOLITAN ACHIEVEMENT TESTS

| | Months | | 1-3 Months | | 4-5 Months | | 6 Months | | Mean Gain in Months |
|---|---|---|---|---|---|---|---|---|---|
| Grade | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | |
| 2 | 14 | 16 | 31 | 35 | 20 | 22 | 24 | 27 | 4 |
| 3 | 29 | 30 | 22 | 23 | 10 | 11 | 34 | 36 | 4 |
| 5 | 30 | 34 | 19 | 22 | 12 | 14 | 26 | 30 | 5 |
| 6 | 47 | 55 | 10 | 12 | 5 | 6 | 23 | 27 | 0 |
| 7 | 35 | 39 | 12 | 13 | 10 | 11 | 33 | 37 | 6 |

Actual grade level standings on the posttest, listed in Table 7, showed most pupils to be at least one year behind their grade level placement, and almost 50 per cent of each of the upper-elementary levels were more than two years behind their assigned grade levels. The causes for this poor achievement were tested in attendance and mobility but substantiation for these hypotheses could not be found. Statistical analyses were done to determine what correlation existed between a pupil's attendance and the gain which he made in reading between the pre and post administration of the Metropolitan Achievement Tests (MAT). The resulting correlation coefficients were not statistically significant and ranged from zero to .23. Table 8 indicates the exact correlation by grade level.

## TABLE 7

## FREQUENCIES OF POSTTEST SCORES ON THE READING SUBTEST OF THE METROPOLITAN ACHIEVEMENT TESTS

| | More Than 2 Yrs. Behind | | 13 Mos. to 2 Yrs. Behind | | 1 Mo. to 1 Yr. Behind | | On or Above Grade Level | | Posttest |
|---|---|---|---|---|---|---|---|---|---|
| Grade | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | Mean Score |
| 2 | * | * | 30 | 34 | 52 | 58 | 7 | 8 | 1.8 |
| 3 | 11 | 12 | 57 | 60 | 25 | 26 | 2 | 2 | 2.3 |
| 4 | 50 | 45 | 48 | 43 | 11 | 10 | 3 | 2 | 2.9 |
| 5 | 40 | 46 | 31 | 36 | 10 | 11 | 6 | 7 | 4.1 |
| 6 | 70 | 82 | 13 | 15 | 0 | 0 | 2 | 3 | 3.9 |
| 7 | 50 | 56 | 19 | 21 | 9 | 10 | 12 | 13 | 4.6 |

## TABLE 8

### CORRELATION BETWEEN METROPOLITAN ACHIEVEMENT TESTS PRETEST/POSTTEST READING GAIN SCORES AND ATTENDANCE

| Grade | Degrees Of Freedom | Coefficient of Correlation |
|---|---|---|
| 2 | 87 | .07 |
| 3 | 93 | .23 |
| 5 | 85 | .15 |
| 6 | 83 | .00 |
| 7 | 88 | .06 |

T tests run between the gains of mobility groups were significant in grades three and five where pupils who were enrolled for the entire year performed better than those who left during the year. No difference was found between the permanent population and new pupils moving into the school. Table 9 presents the t ratios for all three mobility groups.

Further analysis of reading scores was made on the basis of predicted achievement for each grade level. A regression equation employing factors of attendance, mobility, socio-economic status, pupil-teacher ratio, percentage of pupils passing, and pretest scores formulated predictions of posttest scores and resulting gains. A ratio of actual gain to predicted gain yielded a percentage described as a gain rate of effectiveness. Another ratio of the actual posttest score divided by the national norm for the respective grade level resulted in an index of acceptability. The scores used in this analysis included all pretest and all posttest scores which accounts for any difference between the scores listed in Table 10 and those listed in other tables of this report where only matched pre and post test scores were used.

The average rate of effectiveness for the pupils of Blalock Elementary School was 152. Such a high rate was made possible by the second and seventh grade rates of 400 and 300 respectively. These rates mean that pupils of these grades gained 400 and 300 per cent of the gains that were predicted for them by the regression formula. Predicted gains, however, were very low (one month for the second grade and two months for the seventh grade) so that actual gains were either equal to or less than standard gains of six months. The negative rate of effectiveness for the sixth grade occurred because of a loss of one month on the posttest mean score.

## TABLE 9

## COMPARISON OF METROPOLITAN ACHIEVEMENT TESTS READING SCORES OF PUPILS TAKING PRETEST OR POSTTEST ONLY WITH READING SCORES OF PUPILS TAKING BOTH PRETEST AND POSTTEST

| | Pretest Only | | | Pretest/ Posttest | | | | Posttest Only | | | Pretest/ Posttest | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Grade | No. | Mean | S.D. | No. | Mean | S.D. | t-ratio | No. | Mean | S.D. | No. | Mean | S.D. | t-ratio |
| 2 | 21 | 1.36 | .18 | 89 | 1.44 | .25 | -1.457 | 14 | 1.89 | .42 | 89 | 1.84 | .36 | .397 |
| 3 | 26 | 1.72 | .37 | 95 | 1.91 | .38 | -2.285* | 16 | 2.41 | .69 | 95 | 2.29 | .68 | .610 |
| 5 | 23 | 3.35 | .40 | 87 | 3.66 | .68 | -1.680* | 25 | 4.13 | 1.06 | 87 | 4.05 | 1.41 | .265 |
| 6 | 16 | 3.79 | .90 | 85 | 3.88 | .95 | - .350 | 20 | 3.61 | .61 | 85 | 3.92 | 1.02 | -1.291 |
| 7 | 17 | 4.21 | 1.53 | 90 | 4.07 | 1.25 | .393 | 13 | 4.78 | 1.20 | 90 | 4.66 | 1.37 | .297 |

*Significant at the .05 level.

## TABLE 10

## EFFECTIVENESS AND ACCEPTABILITY OF PUPIL PERFORMANCE ON THE READING SUBTEST OF THE METROPOLITAN ACHIEVEMENT TESTS

| Grade | Actual | | Acceptable | Predicted | Gain | | Gain Rate of | Index of |
|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Post | Post | Actual | Predicted | Effectiveness | Acceptability |
| 2 | 1.4 | 1.8 | 2.7 | 1.5 | 0.4 | 0.1 | 400 | 67 |
| 3 | 1.8 | 2.1 | 3.7 | 2.3 | 0.3 | 0.5 | 60 | 57 |
| 5 | 3.4 | 3.6 | 5.7 | 3.8 | 0.2 | 0.4 | 50 | 63 |
| 6 | 3.7 | 3.6 | 6.7 | 3.9 | -0.1 | 0.2 | - 50 | 54 |
| 7 | 3.7 | 4.3 | 7.7 | 3.9 | 0.6 | 0.2 | 300 | 56 |
| Average | | | | | | | 152 | 59 |

The acceptability of pupils' scores averaged 59, i.e. 59 per cent of the national norms. In the primary grades, such a low index of acceptability meant that pupils were one or one and one-half years behind the norm. In the upper grades mean scores averaged 2.1, 3.1, and 3.4 years behind the norms for the fifth, sixth, and seventh grades respectively.

Generally, the reading program did not result in significant gains on the MAT except in the seventh grade. The newness of the school situation to both pupils and teachers may have contributed to the poor test performance so some improvement may be seen next year. Additional inservice training for teachers may also prove beneficial. The crowded conditions discussed under Management and Control could have affected achievement particularly in the second-third grade and sixth-seventh grade clusters.

## XI. COST ANALYSIS

An attempt has been made to relate gains in reading achievement to the amount expended in compensatory funds. Analysis of general funds was not made because of the need to expend a large amount of money to stock the new school with necessary equipment and supplies. Effectiveness of compensatory funds took the form of a projection of the amount of funds necessary to achieve acceptable gains, i.e. one month of gain per month of instruction. In order to determine this projection the yearly per pupil expenditures of compensatory funds were divided by the rate of reading gain, yielding the per pupil expenditure required to achieve 100 per cent gain. Expenditures were obtained from the Trust and Agency Report for June, 1972. Distribution of the funds by grade level was prorated in relation to actual utilization of resources as indicated by the school staff. Calculations were also made to determine the per pupil cost in compensatory funds for each unit of effectiveness where effectiveness was defined according to the percentage of the predicted gain that was actually achieved (See Findings: Overview of Test Performance: 1971-72).

Projections of necessary funds for acceptable gains were possible for only grades two, three, five, six, and seven, since only they received comparable pre and post tests. As seen in Table 11 expenditures were similar for grades two, three, four, and five, but approximately $30 less for grades six and seven due to the assignment of fewer

## TABLE 11

## ANALYSIS OF PER PUPIL EXPENDITURES OF COMPENSATORY FUNDS ACCORDING TO THE RATE OF GAIN ON THE READING SUBTEST OF THE METROPOLITAN ACHIEVEMENT TESTS

| | Grade | | | | | |
|---|---|---|---|---|---|---|
| | Second | Third | Fourth | Fifth | Sixth | Seventh |
| Average Daily Attendance (ADA) (ADA) | 105 | 123 | 129 | 117 | 113 | 112 |
| Per Pupil Cost in Compensatory Funds | | | | | | |
| A. Title I | | | | | | |
| 1. Salary | | | | | | |
| a. Lead Teacher | $ 34 | $ 34 | $ 34 | $ 34 | $ 34 | $ 34 |
| b. Social Worker | 11 | 11 | 11 | 11 | 11 | 11 |
| c. Aides | 47 | 47 | 43 | 43 | 16 | 16 |
| Total Salary | $ 92 | $ 92 | $ 88 | $ 88 | $ 61 | $ 61 |
| 2. Total Non Salary | 4 | 4 | 4 | 4 | 4 | 4 |
| 3. Total Title I | $ 96 | $ 96 | $ 92 | $ 92 | $ 65 | $ 65 |
| B. COP | $ -0- | $ -0- | $ 5 | $ 5 | $ -0- | $ -0- |
| C. Total Compensatory Funds | $ 96 | $ 96 | $ 97 | $ 97 | $ 65 | $ 65 |
| Rate of Reading Gain | .64 | .61 | -- | .73 | .06 | .95 |
| Projected Cost of Compensatory Funds for One Grade Unit of Gain | $ 150 | $ 158 | $ -- | $134 | $1089 | $ 69 |
| Gain Rate of Effectiveness | 400 | 60 | -- | 50 | -50 | 300 |
| Expenditures of ADA of Compensatory Funds for Each Unit of Effectiveness | $ .24 | $1.61 | $ -- | $1.96 | $ -- | $ .22 |

aides to that cluster. The rate of reading gain for each grade level varied considerably with the lowest rate of reading gain found for the sixth grade and the highest rate of gain found for the seventh grade where the least amount of compensatory funds were spent. This indicates that there was no correlation between expenditure for compensatory funds and pupil reading achievement. Therefore, the projected cost itself of compensatory funds for one grade unit of gain is meaningless as a solution to poor reading achievement. Per pupil cost for each unit of effectiveness ranged from $ .22 in the seventh grade to $1.96 in the fifth grade; again, figures showed that there is no relation between the expenditure of compensatory funds and the effectiveness of pupils in reading.

## XII. CONCLUSIONS

Conclusions made herein are based on data recorded in previous sections and with regard to the instructional program of Blalock Elementary School.

A. As a group pupils in the second-third grade cluster did not increase their total reading scores by the predicted six months. Pupils of the second grade came close to meeting the objective by improving their scores by five months.

B. Only 63 per cent of the pupils in the second-third grade cluster could demonstrate their ability to follow directions by completing the teacher-made test with 90 per cent accuracy.

C. Although 85 per cent of the pupils of the second-third grade cluster did not demonstrate their ability to function as desired in a cluster situation, 73 per cent of them were observed to exhibit appropriate behavior between cluster activities, an improvement of 31 per cent over observations taken three months earlier.

D. Pupils of Blalock Elementary School exhibitied very poor attendance for the 1971-72 school year with an average of 86 per cent attendance.

E. A sample of fourth-fifth grade cluster pupils exhibited positive self-images according to the Self-Appraisal Inventory administered in the spring.

F. The Organizational Climate Index administered to teachers of the school showed that the school was quite open in the area of professional development but that teachers felt a need for more orderliness and planning.

G. Only the seventh grade achieved at least a six month gain on the reading subtest of the Metropolitan Achievement Tests.

H. A majority of the pupils of Blalock Elementary School scored more than two years behind the national norm on the reading test of the Metropolitan Achievement Tests.

I. No correlation was found between pupil gains in reading and attendance or expenditure of compensatory funds.

J. Little correlation was found between mobility and reading gains except in grades three and five where pupils who remained enrolled in the school for the entire year performed better on the pretest of the Metropolitan Achievement Tests than pupils who left the school during the year.

K. Only pupils of the second and seventh grades achieved greater gains than predicted for them.

L. Generally pupils from Blalock Elementary School did not achieve acceptable scores on the reading test of the Metropolitan Achievement Tests.

## XIII. RECOMMENDATIONS

The following recommendations are made in consideration of the stated goals of Blalock Elementary School.

A. Additional inservice training should be provided to teachers to assist them in adjusting to the open cluster situation.

B. An attempt should be made to involve parents in their children's school activities, so as to improve attendance and achievement.

C. The faculty should consider ways to improve the effectiveness and acceptability of pupil scores on standardized achievement tests.

The principal and faculty of Blalock Elementary School deserve appreciation and commendation for their effort to provide an individualized instructional program in a new setting.

RESEARCH AND DEVELOPMENT REPORT

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1971--72

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# I. RATIONALE

As during previous years, reading continued to receive major emphasis at W. F. Hardnett Elementary School during the 1971-72 school year. Inspite of the significant gains made among the pupils in this subject, the staff determined that more improvement was needed. The reading scores of pupils on the Metropolitan Readiness Tests (MRT) and Metropolitan Achievement Tests (MAT) showed evidences of this.

According to the performance of 25 first grade pupils on the Metropolitan Achievement Tests (MAT) during the spring of 1971, only two pupils were determined ready for second grade for the coming school year. In addition, according to data from the same tests, the pupils, as a group, were from nine months to three years below grade placement level.

Relative to mathematics, the staff believed that reading improvement would result in improvement in this subject at all grade levels. However, greater emphasis was placed on mathematics activities for pupils of grades four through seven.

Specific procedures used in developing the instructional program included, in addition to studying the achievement levels of pupils, identifying factors which tend to affect the achievement of pupils. Among those receiving greatest concern were attendance, mobility, and income. Attendance remained 90 per cent as during the previous year. However, the community evidenced more stability along with a rise in family income.

The mobility index during the 1971-72 school year decreased from 35 per cent for the 1970-71 school year to 19 per cent for the 1971-72 school year. In addition, there was a decrease in percentage of deprivation among the pupils as indicated by data from the current year's survey of family income. This seems to indicate that families who moved into the school area have higher incomes than those who moved out of the area.

According to recent data the per cent of pupils from low-income families ($2,000 or less) who attended Hardnett Elementary School during the school year 1971-72 was 56.7 per cent as compared with 75 per cent during the previous year.

Specific activities provided to the pupils at Hardnett Elementary School included those of the regular program along with the following supportive activities and/or services:

A. Comprehensive Instructional Program (CIP)

This program provided the services of a coordinator who assisted with the reading activities of grades one through four and mathematics activities in grades four through six. This assistance included inservice activities relative to the effective teaching of reading. Diagnostic testing, test interpretation, and the selection of relevant activities were the primary goals of the program. In addition, the coordinator demonstrated materials and equipment which were utilized to provide effective reading activities.

Relative to mathematics activities, a mathematics contact teacher was selected from the Hardnett School staff and received inservice in the teaching of mathematics. His experiences were shared with teachers of grades four through six.

B. ESEA, Title I

A full-time lead teacher trained in the area of reading coordinated the total instructional program. This individual provided individual assistance to teachers and pupils during the regular school day. In addition, she involved the teachers in group meetings designed for planning and developing curriculum and continuous evaluation of the program activities.

Two Title I aides were assigned to work in the program. One was assigned to the kindergarten while the other aide worked with the teachers of grades one through three. The primary service which these aides provided was in the area of follow-up reading activities for pupils who were the most educationally deprived.

Other Title I services provided were reading materials and funds which were utilized to provide corrective and follow-up medical services for pupils of the kindergarten and first grades.

C. Project Concern

This program provided the services of two college students who worked with teachers of the second and third grades. Each student worked for approximately two hours, two days per week to provide reading activities for educationally deprived pupils.

## II. NEEDS OF PUPILS

According to teacher observation and performance on standardized tests, the needs of the pupils were as follows:

A. To develop more positive self-concept.

B. To improve school attendance.

C. To develop pre-reading skills such as left to right orientation, color, shapes, names of objects, and classification of objects and the names of objects.

D. To develop and extend skills in word analysis, word knowledge, and in comprehension.

E. To acquire knowledge of different organizations through patterns found in each of the content areas.

F. To acquire proficiency in vocabulary usage and concepts.

G. To develop the ability to adjust reading rate to specific types of materials.

## III. GOALS OF THE PROGRAM

The following goals were believed basic to the needs of the pupils as stated previously:

A. To provide services designed to reduce or eliminate the physical and social needs of pupils which may affect their school attendance.

B. To provide readiness experiences designed to extend the experiental backgrounds of the pupils.

C. To provide learning tasks which are commensurate to the individual needs of the pupils.

D. To discover individual talents and interests which may be utilized as a means to improve the self-concept of the pupils.

E. To provide activities such that the pupils may be able to realize some degree of success.

F. To provide a sequential reading program based on the pupils' strengths and weaknesses.

G. To provide activities which will produce more sophisticated readers of literature, and which will encourage the pupils to become more independent, efficient, probing, and creative.

H. To provide a well-rounded reading program including a wide variety of materials from the various content area designed to improve and develop skills in reading rate and comprehension.

### Behavioral Objectives

The following performance objectives were utilized to evaluate the effectiveness of the program activities:

A. The per cent of attendance would be at least equal to the city-wide per cent of attendance for the current school year.

B. Pupils would show positive self-concept as measured by the Self-Appraisal Inventory.

C. First grade pupils who scored "C" or above on the Metropolitan Readiness Tests (MRT) would score first grade, six months or above on the Metropolitan Achievement Tests (MAT).

D. Pupils of grades two through seven would gain one month in reading for each month in the program as measured by pupil performance on the Metropolitan Achievement Tests (MAT).

E. Pupils of grades four through six would show more significant gains in mathematics than pupils of grades two, three, five, and seven.

F. Pupils who are provided tutorial activities would show more significant gains in reading as compared with pupils not participating in tutorial activities.

Critical Variables

A. Reading Performance

B. Mathematics Performance

C. Self-Concept

D. Pupil Attendance.

## IV. MANAGEMENT AND CONTROL

The school principal received the support of the Superintendent and the Area Superintendent in administering the program at the local school level. Area personnel provided consultative services to the principal and teachers relative to teaching procedures and effective utilization of relevant materials and equipment. In addition, the principal aided in promoting community relations by assisting the lead teacher and teachers in the areas of curriculum planning, inservice activities, and program implementation. Further, the principal assisted the teachers and parents in planning activities designed to assist pupils in improving their achievement.

The lead teacher worked directly with teachers and pupils as coordinator, advisor, materials consultant, and time-planning advisor. In addition, she was directly responsible for coordination of curriculum planning and program implementation. This included working in classrooms with individual teachers to demonstrate effective teaching procedures, grouping pupils, administering tests, and assisting with the interpretation of test results.

The teachers involved in the program worked together under the direction of the principal and lead teacher in the planning of relevant activities, selecting materials, locating and developing teaching aids, and evaluating individual pupil study units. Other responsibilities of the teachers included conferences with parents and pupils relative to study assignments and assisting pupils as they evaluated their own progress.

The two Title I teacher aides worked with the kindergarten and primary teachers during the reading activities. In kindergarten the aide worked under the direction of the kindergarten teacher to assist pupils who were severely limited in readiness skills believed necessary to successful achievement in the first grade.

The teacher aide who was assigned to the primary level was concerned with the activities of pupils who had the greatest educational deficits. Activities provided to these pupils were in individual and small group situations focusing on those areas wherein reinforcement was needed.

The librarian served as a resource person in that she directed activities which extended the classroom experiences. All pupils were provided activities in the library. Primary pupils participated in story telling activities and selecting books to read individually based on their own interests and abilities.

## V. PROCESS

During previous years, the American and Scott-Foresman Series, along with the McMillan Reading Spectrum, were utilized to provide a basal reading program at Hardnett Beginning with the school year 1971-72, the staff adopted the Science Research Associates reading series for all pupils of grades kindergarten through seven. Supplementary materials included reading laboratories, along with language kits by Science Research Associates, Betts, and the Ginn Companies. In addition to those materials, a wide variety of teacher-made games served to enrich and/or reinforce the regular reading program.

A modified non-graded plan was used to provide language arts for all pupils. During this period (9:00 - 11:05 daily) pupils of grades one through three were grouped according to reading levels and provided all activities related to language arts including reading. These pupils, designated the primary non-graded, were also provided mathematics utilizing this procedure following the language arts period. All other subjects for grades one through three were provided in self-contained classrooms according to grade placement.

Pupils of grades four through seven, determined the upper non-graded elementary group, were also provided language arts during the same period as the non-graded primary group. During this period the upper elementary group, as was the primary group, was provided reading activities based on achievement levels and/or on individual pupil assessment.

Other subjects, including mathematics, were provided to pupils of grades four through seven in departmental settings. In these instances, the pupils were grouped according to grade placement only. However, within the classroom settings, the pupils were grouped according to ability for small group or individual instructions.

Teacher recommendation and the Comprehensive Instructional Program (CIP) posttest administered during May, 1971, and the Metropolitan Achievement Tests (MAT) results were used to assign pupils to the various instructional groups. In addition, these data were also utilized to identify the Title I pupils who received compensatory reading activities following the regular reading program.

As stated previously, an attempt was made to implement a modified non-graded program. This program, as initially planned, included periods for on-school planning. To allow for these planning periods, the assistance of parents, to serve as volunteers, were requested. In this regard parents were asked to complete data sheets which included the day of week, and the period during which they (the parent) would be available. Even though many parents provided data expressing the desire and time to assist, less than one per cent actually followed through as promised. Reasons given by parents for failing to provide volunteer services were employment, sickness in family, and young siblings in need of their services. This, coupled with the necessity for one Title I aide to remain with the kindergarten, appeared to have had a negative impact on the instructional process. Only one aide worked with the teachers of the primary group. Even though parents participated in the Parent-Teacher Association and other school activities, few were able to assist during the regular school day. Thus, planning was extremely limited. This fact was regarded as being of major importance in the implementation of non-graded activities. According to the plan, this would have included periods for assessing needs of pupils, evaluating their progress, re-grouping pupils to meet individual needs and providing data relative to these to all staff involved. However, the program as implemented did not reflect the original plan. One problem appeared to be that of limited staff. Even though the school showed a pupil/teacher ratio of 26 to 1 in homeroom classes, this ratio differed significantly during the reading and mathematics classes. The achievement levels among pupils at the lower levels were more diversified than those at the upper levels. In view of this, more lower level than upper level classes were initiated. As a result, the pupil/teacher ratio in the upper classes were much larger than those at the lower levels. This affected the upward mobility of pupils at the lower levels, since limited spaces were available in the upper classes. Since pupils could not progress to higher levels, the variation in achievement among pupils of individual classes increased. In addition, the limited number of paraprofessionals also affected program implementation. Since only two Title I aides were assigned to Hardnett School, the teachers were responsible for groups of pupild during each period of the day, even during lunch. Further, the teachers were responsible for all instructional tasks which proved to be too numerous in a non-graded situation without differentiated staffing. In an effort to have planning time, the principal and teachers arrived fifteen minutes early each Thursday and remained after school for one hour on Tuesday of each week. However, this proved inadequate and what appeared to be a non-graded situation was in actuality traditional classroom teaching.

Another situation which may have affected the program was the physical plant. The school is designed for traditional self-contained classroom teaching. In addition, due to inadequate space, portable units occupied much of the play area. This meant that pupils in physical education classes often disturbed pupils who were participating in classes on the inside. In addition to this, the changing of classes, especially in the lower grades, required a significant amount of time and effort on part of the teachers and the pupils.

In summary, the major problems were the absence of a differentiated staffing pattern and a physical structure which did not lend itself to a non-graded teaching situation.

## VI. EVALUATION

The following procedures were used to obtain data necessary for evaluating the effectiveness of the program:

A. The Metropolitan Readiness Tests (MRT) was administered to the first grade pupils as a part of the city-wide testing program. The data were used as the pretest for this report.

B. The Metropolitan Achievement Tests (MAT), Primary Battery, Form G, was administered as the posttest to all first grade pupils in April, 1972.

C. Appropriate forms of the Metropolitan Achievement Tests (MAT) were administered to pupils of grades two, three, five, six, and seven as the pretest and posttest during October, 1971, and April, 1972, respectively. These data were used in assessing the reading and mathematics gains of pupils who were provided specially designed activities. In addition, these data were also utilized to compute the average gains in reading for each grade level and to compare these gains with those for the previous (1970-71) school year.

D. The Self-Appraisal Inventory (SAI) was administered to fifty-seven sixth and seventh graders during May, 1972. These results were used to establish baseline for a longitudinal study of self-concept at Hardnett Elementary School.

E. The Parental Approval Index (PAI) was administered to fifty-six sixth and seventh grade pupils during May, 1972. The results were used to assess the parental approval Index (PAI) as perceived by the pupils. These data of the sixth grade pupils will be used as baseline data in the longitudinal study.

F. The Organizational Climate Index (OCI) was administered to a randomly selected sample of teachers. The results were compared with those of the 1970-71 school year. In addition, a correlation was run to determine if a relationship existed between the attendance of pupils and open climate or achievement of the pupils and open climate.

G. Data relative to teacher absences were reviewed. These data were compared to teacher absences at Hardnett School with city-wide absences among teachers.

H. Data relative to pupil attendance at Hardnett School was reviewed and compared with the attendance of the pupils city-wide. In addition, effort was made to determine where the percentage of attendance was comparable to the attendance of pupils city-wide.

## VII. FINDINGS

### Pupil Performance of First Grade Pupils in Reading

The data relative to the performance of forty-six first graders on the Metropolitan Readiness Tests (MRT) and the reading subtest of the Metropolitan Achievement Tests (MAT) are shown in Tables 1 and 2.

Table 1 shows the performance of first grade pupils on the Metropolitan Readiness Tests (MRT). In addition, it shows how the pupils performed on the Metropolitan Achievement Tests (MAT). Based on these data, it appears that the MRT was, in general, a reliable predictor as to the MAT performance of the pupils who scored A or B. Only three pupils failed to perform on the MAT as expected. The MAT performance of pupils who scored "D" or "E" supported this. However, only one-third of the pupils who scored "C" (average) performed as expected. In general, this indicated that the instructional activities were perhaps geared toward pupils who scored at the upper levels on the MRT rather than toward the pupils who scored average or below.

## TABLE 1

### DISTRIBUTION OF LETTER RATING AND READINESS STATUS CORRESPONDING TO THE VARIOUS RANGES OF TOTAL SCORE ON THE METROPOLITAN READINESS TESTS AND THE METROPOLITAN ACHIEVEMENT TESTS

|  | Metropolitan Readiness Tests |  |  | Metropolitan Achievement Tests Reading Subtest |  |
|---|---|---|---|---|---|
| Number of Pupils | Score Range | Letter Rating | Readiness Status | 1.6 or above | 1.5 or below |
| 3 | Above 76 | A | Superior | 3 | 0 |
| 12 | 64-76 | B | High Normal | 9 | 3 |
| 18 | 45-63 | C | Average | 6 | 12 |
| 11 | 24-44 | D | Low Normal | 2 | 9 |
| 2 | Below 24 | E | Low | 0 | 2 |
| Totals |  |  |  | 20 | 26 |

Mean for Total Group (N = 46) 54 -- C

## TABLE 2

### THE PERFORMANCE OF FIRST GRADE PUPILS ON THE METROPOLITAN READINESS TESTS AND THE READING SUBTEST OF THE METROPOLITAN ACHIEVEMENT TESTS, N = 46

| Metropolitan Readiness Tests | | | Metropolitan Achievement Tests | | | |
|---|---|---|---|---|---|---|
| Group | Number | Per Cent | Scored 1.6 or Above | Per Cent | Scored 1.5 or Below | Per Cent |
| Scored C or Above | 33 | 70 | 18 | 55 | 15 | 45 |
| Scored D or Below | 13 | 30 | 2 | 15 | 11 | 85 |
| Totals | 46 | | 20 | | 26 | |

Relative to the total group, according to pupil performance on the MRT (see Table 2), approximately 70 per cent of the pupils scored "C" or above and were determined ready for first grade activities. However, only 55 per cent of these performed as expected on the *Metropolitan Achievement Tests* (MAT) posttest. This indicated that perhaps the instructional activities were not geared toward the needs of the average or below average pupils. In addition, the performance of the total group indicated that while approximately 30 per cent of the Hardnett School first graders were not ready for first grade activities, over 50 per cent of these same pupils entered second grade for the 1972-73 school year significantly below grade placement.

Data relative to pupils of all other grades who took both the *Metropolitan Achievement Tests* (MAT) pretest and posttest are shown in Table 3. Since the fourth graders took the posttest only, data relative to the performance of these pupils were not included. As shown, the data include the number of pupils who took both the pretest and posttest, the mean reading scores from both the pretest and the posttest, the mean reading gain, per cent of expected gain as achieved, the *t*-test results, per cent of attendance, and correlation between reading gains and attendance.

According to the objective, the pupils, as a group using the mean reading gain, would show a gain of six months in reading. This objective was not achieved even though, with the exception of the fifth and sixth graders, all grade levels show significant gains. Here the fifth graders showed a negative gain.

In addition, while the gain made by the sixth grade was positive, it was not significant.

Based on the *Metropolitan Achievement Tests* data, pupils of grades two and seven gained most. Seemingly, no conclusion could be drawn as to which group performed higher, the early primary non-graded (one through three) or the upper elementary (four through seven) non-graded activities. This was especially evident when the first grade scores were included. No consistent pattern was evidenced.

Attendance, seemingly, was not significantly related to achievement. The seventh graders had the highest per cent of attendance and gained more. However, since total inconsistence was evidenced between attendance and achievement among other grades. Seemingly, no conclusion should be drawn.

## TABLE 3

## COMPARISON OF THE METROPOLITAN ACHIEVEMENT TESTS MEAN READING SCORES, GAIN, PER CENT OF ATTENDANCE, COEFFICIENT OF CORRELATION BETWEEN ATTENDANCE AND READING FOR GRADES 2, 3, 5, and 7

| Grade | Number of Pupils | Mean Score Pretest | Mean Score Posttest | Gain | Per Cent of Expected Gain | t test | Per Cent of Attendance | r |
|---|---|---|---|---|---|---|---|---|
| 2 | 42 | 1.3 | 1.8 | 0.51 | 82.2 | 5.2** | 94.3 | 0.05 |
| 3 | 42 | 2.3 | 2.6 | 0.32 | 51.1 | 4.2** | 95.6 | 0.08 |
| 5 | 40 | 3.7 | 3.7 | -0.30 | -22.2 | -0.3 | 96.1 | 0.14 |
| 6 | 29 | 4.3 | 4.5 | 0.23 | 36.7 | 1.3 | 94.7 | 0.37* |
| 7 | 42 | 5.1 | 5.6 | 0.59 | 94.9 | 3.7** | 97.5 | 0.20 |

*Significant at the .05 level.
**Significant at the .01 level.

As may be noted, the second grade pupils gained more than the third grade pupils but attended less. Further, the fifth grade pupils showed a negative gain and a higher percentage of attendance than both the second and third grade pupils who showed significant gains.

Attendance for all grade levels, using the data for the pretest/posttest groups only, exceeded the city-wide per cent of attendance of 91.3 per cent. However, based on the performance city-wide, school by school and especially at Hardnett School, attendance of pupils did not necessarily determine achievement.

Data of the reading performance of pupils over a two-year period are shown in Table 4. The actual pretest/posttest performance, the acceptable and predicted posttest, actual and predicted gain, gain rate of effectiveness and index of acceptability for school years 1970-71 and 1971-72 are listed. The data are based on the median scores of pupils of various grade levels. The pretest/posttest scores for grade four were based on Metropolitan Achievement Tests (MAT) data of April, 1971, to April, 1972, respectively. Data of all other grades were based on Metropolitan Achievement Tests (MAT), administered during October, 1971, and April, 1972.

The predicted gains for each grade level were based on a regression formula which included (1) pretest scores of pupils, (2) stability index of the pupil population, (3) teacher/pupil ratio, (4) per cent of attendance, (5) per cent of pupil lunches, and (6) per cent of pupils passing.

According to these data, the actual gains in reading ranged from seven months to a negative gain of two months for pupils of grade five. The gains were lower than those predicted for all grades except sixth and seventh. In addition, the actual performance of grades two through five was from one to eight months lower than the predicted performance. Further, even if the pupils had performed as predicted, their reading levels would still be from nine months to approximately three years below the acceptable level (national norms).

In comparing the reading gains of pupils over the two-year period, it appears that, in general, the pupils, as a group, gained less during the 1971-72 school year than during the previous year. However, grades six and seven showed significant improvement. As may be noted, the index of acceptability for the two-year period showed a slight increase for grades three, six, and seven.

# TABLE 4

## EFFECTIVENESS AND ACCEPTABILITY OF THE READING PROGRAM FOR SCHOOL YEARS 1970-71 and 1971-72

| | Actual | | Acceptable | Predicted | Gain | | Gain Rate of Effectiveness | | Index of Acceptability | |
|---|---|---|---|---|---|---|---|---|---|---|
| Grade | Pretest | Posttest | Posttest | Posttest | Actual | Predicted | 1971-72 | 1970-71 | 1971-72 | 1970-71 |
| 2 | 1.3 | 1.7 | 2.7 | 1.8 | 0.4 | 0.5 | 80 | 50 | 63 | 67 |
| 3 | 2.4 | 2.6 | 3.7 | 2.8 | 0.2 | 0.4 | 50 | 120 | 70 | 68 |
| 4 | 2.6 | 3.0 | 4.7 | 3.3 | 0.4 | 0.7 | 57 | 100 | 64 | 66 |
| 5 | 3.6 | 3.4 | 5.7 | 4.2 | -0.2 | 0.6 | - 33 | 220 | 60 | 75 |
| 6 | 3.9 | 4.3 | 6.7 | 4.3 | 0.4 | 0.4 | 100 | - 67 | 64 | 61 |
| 7 | 4.1 | 4.8 | 7.7 | 4.6 | 0.7 | 0.5 | 140 | 50 | 62 | 51 |
| | | | | | Average | | 66 | 79 | 64 | 65 |

However for the total population, the level of acceptability showed a slight decrease. Seemingly, effort should be directed toward developing appropriate activities which will assist pupils in performing more near the national norms.

Table 5 shows the performance of pupils in mathematics by grade level for school year 1971-72. According to these data, pupils, in general, performed better in mathematics than in reading. However, the beginning levels in mathematics for all grades except three were higher. In comparing predicted gains with actual gains, pupils of grades three, five, and seven exceeded expectations while grades two, four, and six did not achieve at the expected levels. It follows that the pupils of grades four, five, and six did not perform higher than pupils of grades two, three, and seven as predicted by the school staff. Relative to actual and acceptable performance the data showed the gap in between national norms and achievement in mathematics at Hardnett School, although significant, is not as great as in reading. The difference here ranged from 1.7 for the seventh grade to six months for the second grade as compared with a gap from one to three years for reading.

Effort was made to compare the performance in reading of pupils who were tutored with the performance of pupils who did not participate in the activity. Fifteen pupils participated as tutees in the activity. However, pretest and posttest scores were available for only six pupils. These included five second grade pupils, one third and one from the first grade. The second and third grade pupils either showed no gains or showed negative gains. In addition, the one first grade pupil scored "C" on the MetropolitanReadiness Tests (MRT) and 1.3 on the Metropolitan Achievement Tests. Therefore, tutoring did not seemingly increase the achievement of these pupils when compared with the mean achievement of those grade levels.

## Self-Concept

The intermediate level of the Self-Appraisal Inventory (SAI), developed by the Instructional Objectives Exchange, was administered to fifty-seven sixth and seventh grade pupils. These data were compiled according to four categories designed to assess the number and the percentage of positive responses of pupils toward their peer group, their family, the school, and themselves in general. The results (see Table 6) indicated a high degree of positive self-concept relative to the four categories existed among the fifty-seven pupils.

## TABLE 5

## EFFECTIVENESS AND ACCEPTABILITY OF THE MATHEMATICS PROGRAM, 1971-72

| | Actual | | Acceptable | Predicted | Gain | | Gain Rate of | Index of |
|---|---|---|---|---|---|---|---|---|
| Grade | Pretest | Posttest | Posttest | Posttest | Actual | Predicted | Effectiveness | Acceptability |
| 2 | 1.4 | 1.6 | 2.7 | 2.0 | 0.2 | 0.6 | 33 | 59 |
| 3 | 2.4 | 3.1 | 3.7 | 2.9 | 0.7 | 0.5 | 140 | 84 |
| 4 | 2.9 | 4.0 | 4.7 | 4.0 | 1.1 | 1.1 | 100 | 85 |
| 5 | 4.6 | 5.0 | 5.7 | 4.9 | 0.4 | 0.3 | 133 | 88 |
| 6 | 5.2 | 5.3 | 6.7 | 5.5 | 0.1 | 0.3 | 33 | 79 |
| 7 | 5.5 | 6.0 | 7.7 | 5.9 | 0.5 | 0.4 | 125 | 78 |
| | | | | | Average | | 94 | 79 |

TABLE 6

THE NUMBER AND PER CENT OF POSITIVE AND
NEGATIVE RESPONSES OF SIXTH AND SEVENTH
GRADE PUPILS ON THE SELF-APPRAISAL INVENTORY
N = 57

| | Response Frequency | | | | |
|---|---|---|---|---|---|
| | Positive Responses | | Negative Responses | | |
| Category of Responses | Number | Per Cent | Number | Per Cent | Total |
| Peer | 600 | 70.2 | 255 | 29.8 | 855 |
| Family | 633 | 74.0 | 222 | 26.0 | 855 |
| School | 589 | 70.0 | 266 | 30.0 | 855 |
| General | 624 | 73.0 | 233 | 27.0 | 847 |

As shown, the pupils responded positive to at least 70 per cent of the statements in all four categories. Seemingly, this indicates that the pupils at Hardnett School have relatively high self-concepts.

The Parental Approval Index (PAI), also developed by the Instructional Objectives Exchange, was administered to the fifty-six sixth and seventh grade pupils. These pupils were those who were also administered the Self-Appraisal Inventory (SAI). These results are shown in Table 7.

As may be noted, the data represent pupil responses to ten situations relative to behaviors regarded as negative. Pupils were asked to respond as to how their mother would think or feel, given that the situations actually had occurred. The results showed that in the majority of the instances, the pupils, in perceiving their mothers' attitudes toward ten specific acts, generally termed "undersirable," gave "acceptable" responses. Also, the responses given by pupils, relative to perceiving the feelings of the mother toward themselves in spite of the "undersirable" acts, were highly acceptable. Seemingly, a high degree of relationships were evidenced between positive and/or acceptable responses of the pupils on the two instruments.

## TABLE 7

### FREQUENCY OF PUPILS RESPONSES ON THE PARENTAL APPROVAL INDEX
N = 56, GRADES 6 AND 7

| Question | Your Mother Would Think | | | Your Mother Would Feel | | | |
|---|---|---|---|---|---|---|---|
| | Approve | Not Approve | Wouldn't Care | Love | Like | Dislike | Hate |
| If you had just: | | | | | | | |
| 1. been caught telling a lie.* | 1 | 54 | 1 | 38 | 3 | 15 | - |
| 2. put a small bird back in the nest from which it had fallen.** | 45 | 7 | 4 | 47 | 8 | 1 | - |
| 3. kicked a little dog.* | 4 | 42 | 10 | 37 | 7 | 12 | - |
| 4. received a report card with very good grades.** | 50 | 6 | - | 54 | 2 | - | - |
| 5. stolen some candy at the drug store.* | - | 56 | - | 36 | 2 | 17 | 1 |
| 6. been tardy at school.* | 3 | 52 | 1 | 31 | 18 | 7 | - |
| 7. crossed the street when the light was red.** | 21 | 31 | 4 | 43 | 6 | 7 | - |
| 8. helped around the house without being told.** | 49 | 6 | 1 | 55 | 1 | - | - |
| 9. hurt a smaller child on purpose.* | 2 | 54 | _ | 34 | 6 | 16 | - |
| 10. acidentally broken your arm while playing.* | 22 | 33 | 1 | 52 | 4 | - | - |

*undesirable behaviors.
**desirable behaviors.

## School Climate

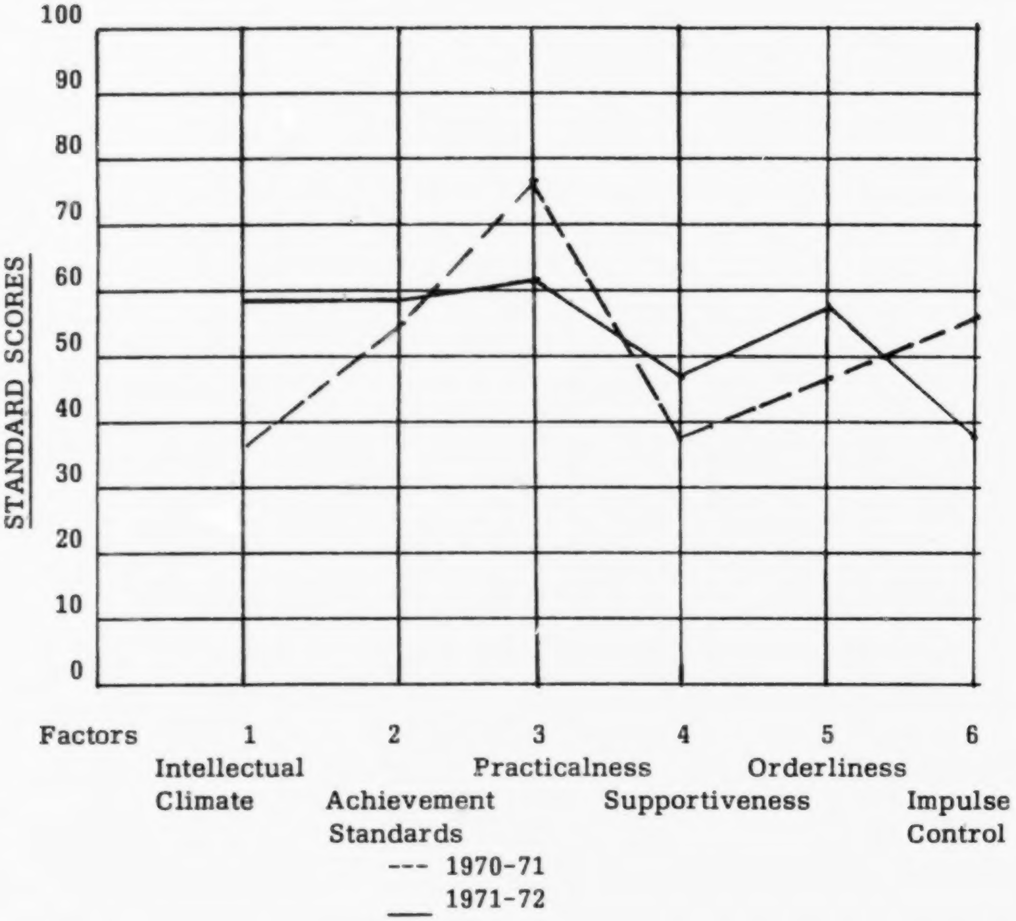
The Organizational Climate Index (OCI), was used to assess the extent to which openness or closeness existed within the school climate at Hardnett Elementary School. The instrument, developed by George Stern of Syracuse University and his associates, was administered to a randomly selected sample of teachers during April, 1972. The data from teachers at Hardnett School and teachers assigned to 27 other schools were included in the study. A similar assessment of the climate was completed for the 1970-71 school year utilizing data from teachers assigned to 14 of the 28 schools included in the 1971-72 study. Accordingly, each teacher who participated in the study responded true or false, as may have been applicable to their situation to 300 statements. These data were compiled on 30 of Murray's Need-Press Scales. Further analysis of these data produced six Organizational Climate Index (OCI) factors termed "first-order" factors. The first five of these describe a second-order factor termed "development press" which is the capacity of the organizational climate to support, encourage, or reward self-actualizing behavior. Another second-order factor, "control press" describes factors which tend to restrict personal expressiveness. Copies of the six OCI factors and Murray's Need-Press Scales, along with their definitions, are included in the Appendix.

Data relative to the climate at Hardnett School, during the two school years 1970-71 and 1971-72, are shown in Table 8. According to these data and to the number of factors above the mean, the climate at Hardnett School was more open during the 1971-72 school year than during the previous year. In addition, the 1971-72 data showed less variation among the six factors. Improvement was noted in intellectual climate, achievement standards, supportiveness, and orderliness. However, scores on practicalness and impulse control showed a decrease from the previous year.

The OCI data from the 28 schools were also used to determine if a relationship existed between attendance of pupils and achievement in reading. In this study the data used, in addition to the OCI results, included the reading achievement scores and the per cent of attendance of pupils in the 28 school. The results showed no significant correlation existed between open climate and attendance or between open climate and reading achievement among the pupils enrolled in the 28 schools.

TABLE 8

SCHOOL PROFILE OF STANDARD FACTOR SCORES ON THE ORGANIZATIONAL CLIMATE INDEX



## Staff Attendance

Data relative to staff attendance among teachers were reviewed in effort to determine if a high percentage absenteeism among teachers occurred. According to data, 14 or 73 per cent of the 19.3 classroom teachers were absent 155.67 days. This indicated that the 14 teachers who were absent, averaged approximately 11.1 days per teacher. This average is approximately comparable to the system-wide average of 11.9 per teacher. Even though the absences at Hardnett School were less than the city-wide average, there may exist the need for further study which would utilize two groups (teachers of inner-city and suburban) to determine if illness occurs among teachers assigned to low-income schools more frequently than among teachers at other schools and if these absences tend to affect pupil achievement. In addition, perhaps, data relative to absenteeism among teachers according to length of service may also be useful. In any event it seems that due to the relatively high incidents of absences among teachers, in general, throughout the system, the need exists for effective ways to prevent the constant interruption of activities for pupils which may result in such situations.

## VIII. COST ANALYSIS

The data in Table 9, show the relative cost for one-grade-unit of gain based upon the rate of gain for school year 1971-72 and the expenditures for that period. The cost, as shown was computed from the expenditures listed in the General Funds Report, June, 1972, and the Trust and Agency Report, June, 1972. From these data estimates were made of the per pupil expenditures from general funds and special projects (compensatory funds). Also included are data which show the cost in compensatory funds for each unit of effectiveness from the Effective? Acceptable? study, 1972. These data, as presented, should not be considered as exact, since in some instances, estimates were made as to the amount of expenditures for instructional materials and the amount of time some staff members worked with pupils of the various grade levels.

The data, as presented, show that expenditures per Average Daily Attendance (ADA) at all grade levels were similar. With reference to reading gains, wide variations were evidenced among the various grade levels ranging from highly positive to negative. While the reading gains made by pupils of grades two and three (early elementary) and pupils of grades six and seven were significant, none performed as high as expected. Further, the pupils of the fifth grade, as a group, lost, even though the expenditures for that grade level, according to available data, were comparable to those of other grade levels.

## TABLE 9

## COST ANALYSIS OF READING GAINS BY GRADES
## TOTAL SCHOOL AVERAGE DAILY ATTENDANCE (ADA)
## K - 7 = 386

| | Grades | | | | | |
|---|---|---|---|---|---|---|
| | Second | Third | Fifth | Sixth | Seventh | Average |
| ADA For Grade | 57 | 53 | 44 | 41 | 50 | 49 |
| Per Pupil Cost | | | | | | |
| A. General Funds | | | | | | |
| 1. Regular | | | | | | |
| a. Salary | $496.54 | $ 496.54 | $496.54 | $ 496.54 | $496.54 | $ 496.54 |
| b. Non-Salary | 28.71 | 28.71 | 28.71 | 28.71 | 28.71 | 28.71 |
| c. Total | $525.25 | $ 525.25 | $525.25 | $ 525.25 | $525.25 | $ 525.25 |
| 2. Comprehensive Instructional Program (CIP) | | | | | | |
| a. Salary | $ 0.11 | $ 0.11 | $ 0.11 | $ 0.11 | $ 0.11 | $ 0.11 |
| b. Non-Salary | 2.26 | 2.26 | 2.26 | 2.26 | 2.26 | 2.26 |
| 3. Total General Funds | | | | | | |
| a. Salary | $496.65 | $ 496.65 | $496.65 | $ 496.65 | $496.65 | $ 496.65 |
| b. Non-Salary | 30.97 | 30.97 | 30.97 | 30.97 | 30.97 | 30.97 |
| c. Total General Funds | $527.62 | $ 527.62 | $527.62 | $ 527.62 | $527.62 | $ 527.62 |
| B. Compensatory Funds | | | | | | |
| 1. Emergency School Assistance Program (ESAP) | | | | | | |
| a. Salary | $ 2.08 | $ 2.08 | $ 2.08 | $ 2.08 | $ 2.08 | $ 2.08 |
| b. Non-Salary | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 |
| c. Total | $ 3.22 | $ 3.22 | $ 3.22 | $ 3.22 | $ 3.22 | $ 3.22 |

TABLE 9 (Cont'd)

| | Grades | | | | | |
|---|---|---|---|---|---|---|
| | Second | Third | Fifth | Sixth | Seventh | Average |
| 2. Title I | | | | | | |
| a. Salary | | | | | | |
| (1) Lead Teacher | $ 0 | $ 0 | $ 24.77 | $ 24.77 | $ 24.77 | $ 24.77 |
| (2) Teacher Aides | 11.44 | 11.44 | 0 | 0 | 0 | 11.44 |
| (3) Total | $ 11.44 | $ 11.44 | $ 24.77 | $ 24.77 | $ 24.77 | $ 36.21 |
| b. Non-Salary | 1.39 | 1.39 | 1.39 | 1.39 | 1.39 | 1.39 |
| c. Total | $ 12.83 | $ 12.83 | $ 26.16 | $ 26.16 | $ 26.16 | $ 20.18 |
| 3. Total Comprensatory Funds | | | | | | |
| a. Salary | $ 13.52 | $ 13.52 | $ 26.85 | $ 26.85 | $ 26.85 | $ 20.87 |
| b. Non-Salary | 2.53 | 2.53 | 2.53 | 2.53 | 2.53 | 2.53 |
| c. Total Compensatory Funds | $ 16.05 | $ 16.05 | $ 29.38 | $ 29.38 | $ 29.38 | $ 23.40 |
| C. Total Per Pupil Cost | | | | | | |
| 1. General Funds | $527.62 | $ 527.62 | $527.62 | $ 527.62 | $527.62 | $ 527.62 |
| 2. Compensatory Funds | 16.05 | 16.05 | 29.38 | 29.38 | 29.38 | 23.40 |
| 3. Total Per Pupil Cost | $543.67 | $ 543.67 | $557.00 | $ 447.00 | $557.00 | $ 551.02 |
| D. Rate of Reading Gain For Pretest/ Posttest Population (Per Cent) | 82 | 51 | - 5 | 37 | 95 | 55 |
| E. Projected Cost For One-Grade-Unit Gain | | | | | | |
| 1. General Funds | $643.44 | $1,034.55 | $ - | $1,426.00 | $555.39 | $ 959.31 |
| 2. Compensatory Funds | 19.57 | 31.47 | - | 79.41 | 30.93 | 42.55 |
| 3. Total Projected Cost For One-Grade-Unit Gain | $663.01 | $1,066.02 | $ - | $1,505.41 | $586.32 | $1,001.86 |
| F. Gain Rate of Effectiveness (Per Cent) | 80 | 50 | -33 | 100 | 140 | 69 |
| G. Expenditure (Per ADA) of Compensatory Funds For Each Unit of Effectiveness | $ .20 | $ .32 | $ - | $ .29 | $ .21 | $ .32 |

Projected cost needed for pupils to achieve one unit of gain varied directly with the rate of gain of pupils for each grade level. The projected cost for the seventh grade was least per ADA, since, as a group, they gained more. Third grade pupils, based on their current rate, would require almost twice as much to achieve the same amount of gain. This appears to suggest that attention should be directed toward other factors which may effect achievement.

This, seemingly, could also apply to cost as related to effectiveness. The data here indicate that no relationship exists between effectiveness and the amount of funds expended. The amount expended (per ADA) was approximately the same for all grade levels. This, along with the wide variation in effectiveness among the grades, would perhaps support the assumption that the funding level, in general, does not necessarily determine the amount of gain.

## IX. CONCLUSIONS

The instructional program at Hardnett School was directed, primarily, toward improving reading achievement of pupils of all grade levels. To achieve this goal the staff changed from the McMillian reading series to the Science Research Associates reading series. In addition, the staff attempted to implement a non-graded program plan.

The implementation of this non-graded plan was, seemingly, affected by limited staff and a physical structure which were not conducive to non-graded situations. Perhaps too, the changing of the reading series may have affected pupil achievement in reading since teacher adjustment to the new materials may have been a factor. However, the teachers and the principal, exerted extensive effort in pursuing the goals of the program and should be commended. The Title I program provided a lead teacher who worked with the staff. This assistance had not previously been provided at Hardnett School. In addition, teaching materials were also provided along with the services of two Title I aides (one less than the previous year).

Meaningful parental involvement was perhaps limited even though the staff made plans to include them during the regular school day to assist in the actual implementation of the activity. However, parents did attend after-school meetings including the Parent-Teacher Association meetings.

A Comprehensive Instructional Program (CIP) coordinator, resource persons from the area office and the Instructional Services Center provided supportive services in forms of inservice training for the Hardnett School staff. This assistance did not seemingly result in improved achievement in reading based on the performance of pupils in grades one through three. Further, data relative to pupil performance in mathematics showed that pupils of grades four through six did not perform higher than those in grades one, two, three, and seven. However, since all pupils made significant gains in both areas except the fifth grade in reading, perhaps all teachers and pupils benefitted from the inservice training and materials. Although certain materials and services were designed for certain teachers and certain grade levels, it seemed that the teachers of other grades were not excluded.

The Title I lead teacher worked with teachers and pupils of all grade levels. However, in general, pupils gained less than the previous years. This may have been due to the non-graded teaching or to the new reading series or both.

In addition it seems that based on the findings at Hardnett, neither attendance of pupils, nor the level of funding contributed significantly to the achievement in reading among the pupils. However, in the case of this school, perhaps another year's evaluation is needed using the Science Research Associates Reading Series before an accurate assessment can be made.

# X. RECOMMENDATIONS

Based on the findings contained in this report, the following recommendations may be in order:

A. The low performance of first grade pupils should be carefully analyzed. Seemingly, the need exists to utilize the pupils' pretest performance. This would especially apply to activities for the first grade pupils who scored average on the Metropolitan Readiness Tests.

B. Special attention should be given to determine possible reasons as to the wide variances in gains among the grade levels. This would specifically include an extensive study of the activities offered to the fifth graders in reading.

C. Perhaps, attention should be directed toward non-graded teaching to determine if such a program is feasible under the present circumstances. This would include, considering the staffing pattern and the physical plant.

D. Continued effort appears to be needed in the area of inservice training relative to effective utilization of the reading series. However, the school year 1972-73 (the second year with the series) will perhaps show higher pupil performance in reading as a result of increased teacher proficiency with this material.

E. Seemingly, effort should be directed toward maintaining and improving the performances of pupils in all grades in an effort to raise and/or increase the level of effectiveness and acceptability. Perhaps, an extensive evaluation of the activities of those grades which showed the greater gain could serve as a focal point.

Finally, it seems that the staff should be congratulated for its attempt to develop and implement an innovative instructional program. Hopefully, such effort, as demonstrated by this group, will result in increased pupil proficiency.

# APPENDIX

# Self-Appraisal Index

1. I like to meet new people.
2. I can disagree with my family.
3. Schoolwork is fairly easy for me.
4. I am satisfied to be just what I am.

5. I wish I got along better with other children.
6. I often get in trouble at home.
7. I usually like my teachers.
8. I am a cheerful person.

9. Other children are often mean to me.
10. I do my share of work at home.
11. I often feel upset in school.
12. I often let other kids have their way.

13. Most children have fewer friends than I do.
14. No one pays much attention to me at home.
15. I can always get good grades if I want to.
16. I can always be trusted.

17. I am easy to like.
18. There are times when I would like to leave home.
19. I forget most of what I learn.
20. I am popular with kids my own age.

21. I am popular with girls.
22. My family is glad when I do things with them.
23. I often volunteer in school.
24. I am a happy person.

25. I am lonely very often.
26. My family respects my ideas.
27. I am a good student.
28. I often do things that I'm sorry for later.

29. Older kids do not like me.
30. I behave badly at home.
31. I often get discouraged in school.
32. I wish I were younger.

33. I am always friendly toward other people.
34. I usually treat my family as well as I should.
35. My teacher makes me feel I am not good enough.
36. I always like being the way I am.

37. Most people are much better liked than I am.
38. I cause trouble to my family.
39. I am slow in finishing my school work.
40. I am often unhappy.

41. I am popular with boys.
42. I know what is expected of me at home.
43. I can give a good report in front of the class.
44. I am not as nice looking as most people.

45. I don't have many friends.
46. I sometimes argue with my family.
47. I am proud of my school work.
48. If I have something to say, I usually say it.

49. I am among the last to be chosen for teams.
50. I feel that my family always trusts me.
51. I am a good reader.
52. I don't worry much.

53. It is hard for me to make friends.
54. My family would help me in any kind of trouble.
55. I am not doing as well in school as I would like to.
56. I have a lot of self control.

57. Friends usually follow my ideas.
58. My family understands me.
59. I find it hard to talk in front of the class.
60. I often feel ashamed of myself.

61. I wish I had more close friends.
62. My family often expects too much of me.
63. I am good in my school work.
64. I am a good person.

65. Sometimes I am hard to be friendly with.
66. I get upset easily at home.
67. I like to be called on in class.
68. I wish I were a different person.

69. I am fun to be with.
70. I am an important person to my family.
71. My classmates think I am a good student.
72. I am sure of myself.

73. Often I don't like to be with other children.
74. My family and I have a lot of fun together.
75. I would like to drop out of school.
76. I can always take care of myself.

77. I would rather be with kids younger than me.
78. My family usually considers my feelings.
79. I can disagree with my teacher.
80. I can't be depended on.

# Answer Sheet

| | true | untrue | | true | untrue | | true | untrue | | true | untrue |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | ____ | _____ | 21. | ____ | _____ | 41. | ____ | _____ | 61. | ____ | _____ |
| 2. | ____ | _____ | 22. | ____ | _____ | 42. | ____ | _____ | 62. | ____ | _____ |
| 3. | ____ | _____ | 23. | ____ | _____ | 43. | ____ | _____ | 63. | ____ | _____ |
| 4. | ____ | _____ | 24. | ____ | _____ | 44. | ____ | _____ | 64. | ____ | _____ |
| 5. | ____ | _____ | 25. | ____ | _____ | 45. | ____ | _____ | 65. | ____ | _____ |
| 6. | ____ | _____ | 26. | ____ | _____ | 46. | ____ | _____ | 66. | ____ | _____ |
| 7. | ____ | _____ | 27. | ____ | _____ | 47. | ____ | _____ | 67. | ____ | _____ |
| 8. | ____ | _____ | 28. | ____ | _____ | 48. | ____ | _____ | 68. | ____ | _____ |
| 9. | ____ | _____ | 29. | ____ | _____ | 49. | ____ | _____ | 69. | ____ | _____ |
| 10. | ____ | _____ | 30. | ____ | _____ | 50. | ____ | _____ | 70. | ____ | _____ |
| 11. | ____ | _____ | 31. | ____ | _____ | 51. | ____ | _____ | 71. | ____ | _____ |
| 12. | ____ | _____ | 32. | ____ | _____ | 52. | ____ | _____ | 72. | ____ | _____ |
| 13. | ____ | _____ | 33. | ____ | _____ | 53. | ____ | _____ | 73. | ____ | _____ |
| 14. | ____ | _____ | 34. | ____ | _____ | 54. | ____ | _____ | 74. | ____ | _____ |
| 15. | ____ | _____ | 35. | ____ | _____ | 55. | ____ | _____ | 75. | ____ | _____ |
| 16. | ____ | _____ | 36. | ____ | _____ | 56. | ____ | _____ | 76. | ____ | _____ |
| 17. | ____ | _____ | 37. | ____ | _____ | 57. | ____ | _____ | 77. | ____ | _____ |
| 18. | ____ | _____ | 38. | ____ | _____ | 58. | ____ | _____ | 78. | ____ | _____ |
| 19. | ____ | _____ | 39. | ____ | _____ | 59. | ____ | _____ | 79. | ____ | _____ |
| 20. | ____ | _____ | 40. | ____ | _____ | 60. | ____ | _____ | 80. | ____ | _____ |

# Parental Approval Index

1. If you had just been caught telling a lie.
What would your mother think about what you did?
Approve _____ Not Approve _____ Wouldn't Care _____
How would your mother feel about you as a person?
Love me _____ Like me _____ Dislike me _____ Hate me _____

2. If you had just put a small bird back in the nest from which it had fallen.
What would your mother think about what you did?
Approve _____ Not Approve _____ Wouldn't Care _____
How would your mother feel about you as a person?
Love me _____ Like me _____ Dislike me _____ Hate me _____

3. If you had just kicked a little dog.
What would your mother think about what you did?
Approve _____ Not Approve _____ Wouldn't Care _____
How would your mother feel about you as a person?
Love me _____ Like me _____ Dislike me _____ Hate me _____

4. If you just recieved a report card with very good grades.
What would your mother think about what you did?
Approve _____ Not Approve _____ Wouldn't Care _____
How would your mother feel about you as a person?
Love me _____ Like me _____ Dislike me _____ Hate me _____

5. If you had just stolen some candy at the drug store.
What would your mother think about what you did?
Approve _____ Not Approve _____ Wouldn't Care _____
How would your mother feel about you as a person?
Love me _____ Like me _____ Dislike me _____ Hate me _____

6. If you had just been tardy at school.
What would your mother think about what you did?
Approve _____ Not Approve _____ Wouldn't Care _____
How would your mother feel about you as a person?
Love me _____ Like me _____ Dislike me _____ Hate me _____

7. If you had just crossed the street when the light was red.
What would your mother think about what you did?
Approve _____ Not Approve _____ Wouldn't Care _____
How would your mother feel about you as a person?
Love me _____ Like me _____ Dislike me _____ Hate me _____

8. If you had just helped around the house without being told.
What would your mother think about what you did?
Approve _____ Not Approve _____ Wouldn't Care _____
How would your mother feel about you as a person?
Love me _____ Like me _____ Dislike me _____ Hate me _____

9. If you had just hurt a smaller child on purpose.
What would your mother think about what you did?
Approve _____ Not Approve _____ Wouldn't Care _____
How would your mother feel about you as a person?
Love me _____ Like me _____ Dislike me _____ Hate me _____

10. If you had just accidentally broken your arm while playing.
What would your mother think about what you did?
Approve _____ Not Approve _____ Wouldn't Care _____
How would your mother feel about you as a person?
Love me _____ Like me _____ Dislike me _____ Hate me _____

## DEFINITIONS OF SCALES FROM WHICH DEVELOPMENT PRESS AND CONTROL PRESS ARE DERIVED IN THE ORGANIZATIONAL CLIMATE INDEX

1. Abasement-assurance: self-deprecation versus self-confidence.
2. Achievement: striving for success through personal effort.
3. Adaptability-defensiveness: acceptance of criticism versus resistance to suggestion.
4. Affiliation-rejection: friendliness versus unfriendliness.
5. Agression-blame avoidance: hostility versus disorganization.

6. Change-sameness: flexibility versus routine.
7. Conjunctivity-disjunctivity: planfulness versus organization.
8. Counteraction-inferiority avoidance: restriving after failure versus withdrawn.
9. Deference-restriveness: respect for authority versus rebelliousness.
10. Dominance-tolerance: ascendance versus forebearance.

11. Ego Achievement: striving for power through social action.
12. Emotionality-placidity: expressiveness versus restraint.
13. Energy-passivity: effort versus inertia.
14. Exhibitionism-inferiority avoidance: attention-seeking versus shyness.
15. Fantasied achievement: daydreams of extraordinary public recognition.

16. Harm avoidance -- risk-taking: fearfulness versus thrill seeking.
17. Humanities-social sciences: interests in the humanities and the social science.
18. Impulsiveness-deliberation: impetuosity versus reflection.
19. Narcissism: vanity.
20. Nurturance-rejection: helping others versus indifference.

21. Objectivity-projectivity: detachment versus superstition (AI) or suspicion (CI)
22. Order-disorder: compulsive organization of details versus carelessness.
23. Play-work: pleasure-seeking versus purposefulness.
24. Practicalness-impracticalness: interest in practical activities versus indifference.
25. Reflectiveness: introspective contemplation.

26. Science: interest in the natural sciences.
27. Sensuality-puritanism: interest in sensory and aesthetic experiences.
28. Sexuality-prudishness: heterosexual interests versus inhibitions of heterosexual interests.
29. Supplication-autonomy: dependency versus self-reliance.
30. Understanding: intellectuality.

## Development Press

A. Intellectual climate -- This factor describes a concern with intellectual activity, social action, and personal effectiveness. It is based on the scales for humanities, social science, science, reflectiveness, understanding, fantasied achievement, exhibitionism, and change. A school that scores high on this factor is one in which the teachers feel that there is a high degree of intellectuality, heterosexual interests, flexibility, and attention seeking.

B. Achievement standards -- This is the factor reflecting press for achievement. Schools high on this factor stress hard work, perseverance, and a total day-by-day commitment to institutional purposes. It is defined by counteraction, energy, achievement, emotionality, and ego achievement.

C. Practicalness -- This factor suggests an environmental dimension of practicality tempered with friendliness. It is defined by practicaliness and nurturance. A school that scores high on this factor is one in which the teachers feel there is a high interest in practical activity and a desire for helping others.

D. Supportiveness -- This factor deals with aspects of the organizational environment that respect the integrity of the teacher as a person, but the implication is that dependency needs must be supported rather than personal autonomy emphasized. It might be considered a measure of democratic paternalism. The scales defining it are assurance, tolerance, objectivity, affiliation, conjunctivity, supplication, blame avoidance, harm avoidance, and nurturance. A school that scores high on this factor is one in which the teachers feel a high degree of self-confidence, friendliness, and planfulness.

E. Orderliness -- The components of this factor are concerned with the press for organizational structure, procedure, orderliness, and a respect for authority. Conformity to community pressures and an effort to maintain a proper institutional image probably are also concomitants of a high score on this factor. It is based on order, narcissism, adaptability, conjunctivity, harm avoidance, and deference. A school that scores high on this factor is one in which the teachers feel there is a compulsive organization of details, acceptance of criticism, respect for authority, vanity, and planfulness.

### Control Press

In addition to the reflection of factors 1 and 2 under "Development Press," Control Press involves:

> Impulse control -- This factor implies a high level of constraint and organizational restriveness. There is little opportunity for personal expression or for any form of impulsive behavior. It is based on work instead of play; prudishness versus sexuality; aggression versus blame avoidance; impulsiveness versus deliberation; emotionality versus placidity; and exhibitionism versus inferiority avoidance. A school that scores high on this factor is one in which the teachers feel there is a high degree of purposefulness, heterosexual interests, hostility, impetuosity, expressiveness, and restriving after failure.

RESEARCH AND DEVELOPMENT REPORT

Vol. VI, No. 40 May, 1973

# JEROME JONES ELEMENTARY SCHOOL
1971-72

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## I. INTRODUCTION

Jerome Jones Elementary School is located in the Grant Park neighborhood of the Model Cities area on Home Street. The school had a kindergarten class and grades one through seven. The enrollment was 474 in 1970-71 and 461 in 1971-72. The neighborhood is primarily rental homes and apartments. This was reflected in the high mobility index of .42 in 1970-71 and .51 in 1971-72. This caused a constant problem in providing continuity of instruction in the school.

Jerome Jones School used funds and resources from supportive programs to broaden and strengthen the existing instructional program. These were the Comprehensive Instructional Program (CIP), the Model Cities Breakfast and Teacher Pupil Services programs, and the Teacher Corp program.

## II. NEEDS

The identified needs of the participants were the foundation for the development of the school year plan. The goals, behavioral objectives, and critical variables were determined from and to satisfy the identified needs. These needs were as follows:

A. For the pupils to acquire basic reading and communication skills.

B. For the pupils to be exposed to various enrichment experiences.

C. For the pupils to develop a more positive self-concept.

D. For parents to be more aware of and involved in school activities.

E. For the pupils to have improved health care and proper diet.

F. For the pupils to improve their school attendance habits.

## III. GOALS

The primary goals of Jerome Jones School were to improve academic achievement and to improve home-school relationships. The secondary goals were as follows:

A. To improve the pupil's self-concept through successful learning experiences and enrichment activities.

B. To improve the pupil's enrichment experiences through various media, field trips, social, and cultural activities.

C. To improve parent involvement in school activities through better communications between school and home.

D. To improve the pupils attendance habits through various activities offered by the school.

## IV. BEHAVIORAL OBJECTIVES

The following objectives were formulated to evaluate the extent to which the school was meeting the needs of the pupils and the goals of the school program.

The behavioral objectives to be met were as follows:

A. Seventy-five per cent of the school population would show at least 0.8 gain in grade level for reading skills as measured by the Metropolitan Achievement Tests (MAT).

B. Thirty-five per cent of the school population would increase their reading skills at a rate of one month for each month of instruction as measured by the Metropolitan Achievement Tests (MAT).

C. Twenty-five per cent of the parents would participate in parent involvement activities.

D. The per cent of atttendance would increase by at least two per cent over last year's rate.

Specific goals and objectives for the supportive programs are shown in Section VI, Supporting Projects.

## V. CRITICAL VARIABLES

The critical variables which were observed and measured to reflect the desired changes were as follows:

A. Reading Skills

1. Vocabulary

2. Comprehension

3. Word Attack

B. Self-Concept

C. Parent Involvement

D. Attendance Rate.

## VI. SUPPORTING PROJECTS

The supporting projects as well as the existing educational program were directed toward satisfying the identified needs. At Jerome Jones School the supporting projects were funded by the Comprehensive Instructional (CIP) and the Model Cities Educational Component, and Teacher Corp.

A. Comprehensive Instructional Program (CIP)

CIP focused on diagnostic teaching of reading in grades one through three and mathematics in grades four through six. The goal was to provide the pupils with the skills in reading and mathematics for educational growth. The objective was for each pupil to gain one month for each month of instruction.

B. Model Cities Educational Component

The Model Cities Program offered, to schools in the Model Neighborhood Area (MNA), educational programs that would increase attendance and achievement of pupils, decrease dropouts, provide day care services, and lower adult illiteracy and unemployment. The community residents selected the programs which best suited the community needs. Jerome Jones School participated in the following activities:

1. Breakfast Program

The goal of the Breakfast Program was to provide a free, nutritional breakfast to as many pupils as desired it. The objective was to help increase last year's attendance rate by two per cent. Another objective was to improve academic achievement based on an increased mental alertness due to the pupils having a nutritional meal.

2. Teacher-Pupil Services Program

The goal of this program was to help increase the attendance rate by two per cent above the rate of last year. The objective was to improve home-school relationships. An attendance aide was used to improve the attendance habits; attitude toward school, teachers and peers; and involve parents in school activities. The social worker handled the referral cases from the attendance aide.

C. Teacher Corp Program

The Teacher Corp program was designed to strengthen educational opportunities of pupils in low income communities, and to encourage colleges and universities to broaden teacher preparation programs. Emphasis was placed on developing teaching compentencies needed particularly in deprived areas. The goal was to train interns and provide them with teaching experiences. The objective was to have pupils assigned to a Teacher Corp Team show higher academic achievement than other similar pupils.

## VII. MANAGEMENT AND CONTROL

A. Administration

The pupil-teacher ratio at Jerome Jones School was 1 to 25. The main effort of the school principal was toward involvement of the parents in improving the pupils attitudes and academic achievement. Extensive use was made of the Teacher Corps personnel in recruiting and involving parent volunteers in all phases of the school program.

B. Instructional Organization

A combination of team teaching and self contained units with resource teachers was used. The second, third, sixth, and seventh grades utilized the team teaching approach. The fourth and fifth grades were departmentalized. The Teacher Corps teams consisted of a Senior Teacher, Team leader and intern and were used to give the students more assistance and to give the interns an opportunity to gain experience. Teachers Corp teams worked with grade two.

## VIII. PROCESS

In addition to the supportive programs and personnel previously cited, examples of activities that were used to achieve the goals and behavioral objectives included the following:

A. Involvement of a large number of parents in the school program.

B. Teacher Corps Interns for instructional assistance.

C. Both team teaching and departmentalizing for variety in the instructional process.

D. Stress on the individuality of each pupil by the principal.

## IX. EVALUATION PLAN

### A. Instruments

1. Rate of gain for reading skills was determined from the differences in the pre and post Metropolitan Achievement Tests (MAT) scores.

2. Parental involvement, on a volunteer basis, was determined by checking school records.

3. Per cent of attendance improvement was determined from the school attendance records.

4. Breakfast Program participation rate was determined from the records of the daily meals served.

5. Teacher-Pupil Services Program performance was determined from the monthly output measures for both the attendance aide and the social worker.

6. Cost effectiveness was determined on a per pupil expenditure basis for each grade.

### B. Methodology

Evaluation of the accomplishments for the 1971-72 school year took four approaches: (1) evaluation of behavioral objectives, (2) evaluation of supportive program (3) review of test performance for 1971-72 and (4) longitudinal view of test data for 1970-71 and 1971-72 based on effectiveness and acceptability. Included are comparison of scores in reading compared to national and city-wide norms, and frequences in gains and post test scores.

## X. FINDINGS

### A. Evaluation of Behavioral Objectives

1. Seventy-five per cent of the school population would show at least a gain of 0.8 in grade level for reading skills.

Grade two had 27 per cent, grade three had 17 per cent, grade five had 26 per cent, grade six had 31 per cent and grade seven had 48 per cent score higher than a 0.8 gain. The total for all grades was 29 per cent. No grade reached the objectives and the total mean gain for all pupils was 0.5. This is shown in Table 1.

### TABLE 1

### READING GAINS ON METROPOLITAN ACHIEVEMENT TESTS BETWEEN PRE AND POST TESTS*

| | Negative to 0 | | .1 to .3 | | .4 to .7 | | .8 or above | | |
|---|---|---|---|---|---|---|---|---|---|
| Grade | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | Mean Gain |
| 2 | 1 | 2 | 12 | 29 | 17 | 41 | 11 | 27 | 0.7 |
| 3 | 6 | 13 | 9 | 19 | 25 | 52 | 8 | 17 | 0.5 |
| 5 | 13 | 33 | 6 | 15 | 10 | 26 | 10 | 26 | 0.3 |
| 6 | 15 | 43 | 7 | 20 | 2 | 6 | 11 | 31 | 0.4 |
| 7 | 13 | 30 | 4 | 9 | 6 | 14 | 21 | 48 | 0.7 |
| | 48 | 224 | 38 | 18 | 60 | 29 | 61 | 29 | 0.5 |

*Six month period.

2. Thirty-five per cent of the school population would increase their reading skills at a rate of one month for each month of instruction.

   Grade two had 49 per cent, grade three 46 per cent, grade five had 38 per cent, grade six had 34 per cent and grade seven had 59 per cent achieve a gain of 0.6 or more of all pupil, 46 per cent reached or exceeded the objective. This is shown in Table 2.

3. Twenty-five per cent of the parents would participate in parent involvement activities.

   Of 244 families, there were 76 involved in activities. Due to the efforts of the principal and through the use of Teacher Corps volunteers, 31 per cent of the parents were involved in school activities.

### TABLE 2

### READING GAIN ON METROPOLITAN ACHIEVEMENT TESTS BETWEEN PRE AND POST TESTS*

| Grade | 0.5 Months or Less | | 0.6 Months or Above | |
|---|---|---|---|---|
| | Number | Per Cent | Number | Per Cent |
| 2 | 21 | 51 | 20 | 49 |
| 3 | 26 | 54 | 22 | 46 |
| 5 | 24 | 62 | 15 | 38 |
| 6 | 23 | 66 | 12 | 34 |
| 7 | 18 | 41 | 26 | 59 |
| Total | 112 | 54 | 95 | 46 |

*Six month period.

4. The per cent of attendance would increase by at least two per cent over the last year's rate.

   The per cent of attendance for 1970-71 was 89.3 and for 1971-72 was 89.1. This was a decrease of 0.2, and the objective was not reached.

B. Evaluation of Supportive Programs

1. Comprehensive Instructional Program (CIP)

   The goal of this was to have the pupils gain one month for each month of instruction (.6) in grades 2 and 3. As shown in Table 1, the mean gain for grade 2 was .7 and grade three was .5. This was satisfactory for this program.

2. Model Cities Breakfast Program

   The goal was to provide a free, nutritional breakfast to as many pupils as desired it. The objective was to help improve attendance.

   An average of 175 breakfasts were served each day through April and May. The attendance percentage did not increase as hoped, but it is felt that the program served the purpose of giving the pupils time for interaction outside the classroom.

3. Teacher-Pupil Service

The goal was to help increase attendance by two per cent.

There is no indication that this program reached its goal. Attendance did not increase, and it was largely through the efforts of the principal that parental involvement gained.

4. Teacher Corp Program

The objective was to have pupils assigned to a Teacher Corp team score higher gain than other pupil. Teacher Corp worked with grade two, and a mean gain of 0.7 was achieved. Table 1 shows frequency of gain for this grade. The objective was achieved.

C. Review of Test Performance

As shown in Table 1, the gains of grades two and seven were very satisfactory. Table 3 indicates that the majority of the pupils (70 per cent) are 12 months or more behind national norms. Grade two had the highest per cent (63) within 12 months of national norms. The range was from 0.5 behind in second grade to 2.6 behind in seventh grade. In comparison to city-wide norms, the pupils performed well, with grades five, six, and seven equalling or exceeding city-wide levels.

D. Longitudinal Data

This is an attempt to track student progress in the school. Table 4 shows posttest scores, gain, and rate of gain for 1970-71 and 1971-72. Most grades showed an increase in all three factors for the 1971-72 school year.

## TABLE 3

## ANALYSIS OF POSTTEST SCORES IN READING ON METROPOLITAN ACHIEVEMENT TESTS

|  | 24 Months or More Behind* |  | 12-23 Months Behind* |  | 3-11 Months Behind* |  | Within 2 Months of Grade Level or Above* |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grade | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | Posttest Level | City Wide Level | National Level |
| 2 | -- | 0 | 14 | 34 | 17 | 41 | 10 | 22 | 2.2 | 2.4 | 2.7 |
| 3 | 3 | 6 | 23 | 48 | 14 | 29 | 8 | 27 | 2.7 | 3.0 | 3.7 |
| 4 | 13 | 27 | 23 | 48 | 5 | 10 | 7 | 15 | 3.5 | --- | 4.7 |
| 5 | 19 | 49 | 15 | 38 | 3 | 8 | 2 | 5 | 3.9 | 3.9 | 5.7 |
| 6 | 21 | 60 | 8 | 22 | 3 | 9 | 3 | 9 | 4.6 | 4.4 | 6.7 |
| 7 | 35 | 80 | 3 | 7 | 2 | 5 | 4 | 8 | 5.1 | 4.8 | 7.7 |
| All Grades | 91 | 36 | 86 | 34 | 44 | 17 | 34 | 13 |  |  |  |

*National Norms.

## TABLE 4

## POSTTEST LEVELS, GAINS AND RATE OF GAIN ON METROPOLITAN ACHIEVEMENT TESTS 1970-71 and 1971-72*

| Grade | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| A. Grade Level (Posttest) | | | | | | |
| 70-71 | 1.84 | -- | 3.55 | 4.06 | 4.54 | 5.49 |
| 71-72 | 2.10 | 2.69 | 3.30 | 3.87 | 4.59 | 5.11 |
| B. Gain (Pre-Post)** | | | | | | |
| 70-71 | .37 | -- | .50 | .06 | .30 | .70 |
| 71-72 | .64 | .52 | -- | .34 | .36 | .68 |
| C. Rate of Gain *** | | | | | | |
| 70-71 | .60 | -- | .80 | .10 | .50 | 1.20 |
| 71-72 | 1.00 | .83 | -- | .55 | .58 | 1.10 |

* In years.
** Six month period.
***Projected for school year.

Further analysis of reading scores was made on the basis of predicted achievement for each grade level. A regression equation employing factors of attendance, mobility, socioeconomic status, pupil-teacher ratio, percentage of pupils passing, and pretest scores formulated predictions of posttest scores and resulting gains. A ratio of actual gain to predicted gain yielded a percentage described as a gain rate of effectiveness. Another ratio of the actual posttest score divided by the national norm for the respective grade level resulted in an index of acceptability. Table 5 shows the changes in the gain rate of effectiveness and the index of acceptability.

Gain rate of effectiveness improved from 89 in 1970-71 to 137 in 1971-72. Grades two, four, and five showed appreciable gains, with grade seven showing a slight decrease. The overall level is good, and the gains are excellent.

## TABLE 5

## EFFECTIVENESS AND ACCEPTABILITY BASED ON READING TEST DATA FOR 1971-72

|  | Actual |  | Acceptable | Predicted | Gain |  | Gain Rate of Effectiveness |  | Index of Acceptability |  |
|---|---|---|---|---|---|---|---|---|---|---|
| Grade | Pre | Post | Post | Post | Actual | Predicted | 1971-72 | 1970-71 | 1971-72 | 1970-71 |
| 2 | 1.2 | 1.8 | 2.7 | 1.7 | 0.6 | 0.5 | 120 | 80 | 67 | 63 |
| 3 | 1.9 | 2.7 | 3.7 | 2.5 | 0.8 | 0.6 | 133 | 133 | 73 | 76 |
| 4 | 2.6 | 3.2 | 4.7 | 3.5 | 0.6 | 0.9 | 67 | 60 | 68 | 68 |
| 5 | 3.4 | 3.7 | 5.7 | 3.7 | 0.3 | 0.3 | 100 | 0 | 65 | 63 |
| 6 | 3.7 | 4.3 | 6.7 | 3.9 | 0.6 | 0.2 | 300 | 133 | 64 | 64 |
| 7 | 4.3 | 4.8 | 7.7 | 4.8 | 0.5 | 0.5 | 100 | 125 | 62 | 62 |
|  |  |  |  |  |  | Average | 137 | 89 | 67 | 66 |

The index of acceptability dropped one point from 67 to 66. If the gain rate of effectiveness holds it increases, the acceptable index should rise. All grades matched or exceeded the predicted post test level, but were not favorable compared to national norms.

## XI. COST ANALYSIS

The data presented in Table 6, show the relative cost for a one-grade-unit of gain based upon the rate of gain for 1971-72 and the amount spent. In order to compute these costs, expenditures were taken from the General Funds Report, June, 1972, and the Trust and Agency Report, June, 1972. From these figures estimates were made of the per pupil cost from general funds and special projects (compensatory funds). These data also show the cost in compensatory funds for each unit of effectiveness -- effectiveness as determined in the Effective?...Acceptable? Study, 1972. The reader is cautioned that these data are not exact or refined. Broad estimates were made based upon information obtained from the school staff relative to the utilization of resources.

According to these data, the cost for a one grade unit of gain was not related to the funds spent. The largest amount was spent in grade (five) which showed the lowest gains. One must question what factors contributed to the variances in gains.

## XII. CONCLUSIONS

Based on discussions with the principal and analysis of the data, the following conclusions were drawn:

A. A commendable job was done in the reading gains made by the pupils.

B. Reading levels are not satisfactory compared to national norms, but are satisfactory in comparison to city-wide norms.

C. The Breakfast and Teacher-Pupil Programs contributed very little to the overall school program.

## TABLE 6

### COST ANALYSIS OF READING GAINS BY GRADES
### TOTAL SCHOOL AVERAGE DAILY ATTENDANCE (ADA)
### GRADES K--7 = 421

| | GRADES | | | | | |
|---|---|---|---|---|---|---|
| | Second | Third | Fifth | Sxith | Seventh | TOTAL |
| ADA | 55 | 56 | 53 | 41 | 58 | |
| Per Pupil Cost | | | | | | |
| A. General Funds | | | | | | |
| 1. Regular | | | | | | |
| a. Salary | $ 581.00 | $ 581.00 | $ 581.00 | $ 581.00 | $ 581.00 | $ 581.00 |
| b. Non-salary | 78.00 | 78.00 | 78.00 | 78.00 | 78.00 | 78.00 |
| 2. CIP | | | | | | |
| a. Salary | $ 1.00 | $ 1.00 | $ 1.00 | $ 1.00 | $ 1.00 | $ 1.00 |
| b. Non-salary | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 3. General Funds | | | | | | |
| a. Salary | $ 582.00 | $ 582.00 | $ 582.00 | $ 582.00 | $ 582.00 | $ 582.00 |
| b. Non-salary | 79.00 | 79.00 | 79.00 | 79.00 | 79.00 | 79.00 |
| c. Total | $ 661.00 | $ 661.00 | $ 661.00 | $ 661.00 | $ 661.00 | $ 661.00 |
| B. Special Projects | | | | | | |
| 1. Model Cities | | | | | | |
| a. Salary | $ 9.00 | $ 9.00 | $ 9.00 | $ 9.00 | $ 9.00 | $ 9.00 |
| b. Non-salary | -0- | -0- | -0- | -0- | -0- | -0- |
| c. Total | $ 9.00 | $ 9.00 | $ 9.00 | $ 9.00 | $ 9.00 | $ 9.00 |
| 2. National Teacher Corps | | | | | | |
| a. Salary | $ 91.00 | $ 91.00 | $ 91.00 | $ 91.00 | $ 91.00 | $ 91.00 |
| b. Non-salary | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| c. Total | $ 92.00 | $ 92.00 | $ 92.00 | $ 92.00 | $ 92.00 | $ 92.00 |
| 3. ESAP | | | | | | |
| a. Salary | $ 1.00 | $ 1.00 | $ 1.00 | $ 1.00 | $ 1.00 | $ 1.00 |
| b. Non-salary | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| c. Total | $ 2.00 | $ 2.00 | $ 2.00 | $ 2.00 | $ 2.00 | $ 2.00 |
| 4. Total Compensatory Funds | | | | | | |
| a. Salary | $ 101.00 | $ 101.00 | $ 101.00 | $ 101.00 | $ 101.00 | $ 101.00 |
| b. Non-salary | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| c. Total | $ 103.00 | $ 103.00 | $ 103.00 | $ 103.00 | $ 103.00 | $ 103.00 |
| C. Total Per-Pupil Cost | | | | | | |
| 1. General Funds | $ 661.00 | $ 661.00 | $ 661.00 | $ 661.00 | $ 661.00 | $ 661.00 |
| 2. Compensatory Funds | $ 103.00 | $ 103.00 | $ 103.00 | $ 103.00 | $ 103.00 | $ 103.00 |
| 3. Total Per-Pupil Cost | $ 764.00 | $ 764.00 | $ 764.00 | $ 764.00 | $ 764.00 | $ 764.00 |
| Rate of Reading Gain (Per Cent) | 100 | 83 | 55 | 58 | 110 | 81 |
| Projected Cost for One-Grade Unit of Gain | | | | | | |
| A. General Funds | $ 661.00 | $ 661.00 | $ 661.00 | $ 661.00 | $ 661.00 | $ 661.00 |
| B. Special Projects | 103.00 | 124.00 | 187.00 | 178.00 | 94.00 | 134.00 |
| C. Total | $ 764.00 | $920.00 | $1389.00 | $1318.00 | $ 695.00 | $ 994.00 |
| Gain Rate of Effectiveness | 120 | 133 | 100 | 300 | 100 | 137 |
| Expenditure (Per ADA) of Compensatory Funds for Each Unit of Effectiveness | $ 0.86 | $ 0.77 | $ 1.03 | $ 0.34 | $ 1.03 | $ 0.83 |

D. The home-school relations were very good as evidenced by parent participation in activities.

E. The amount of funds spent did not relate significantly to the performance of the pupils.

## XIII. RECOMMENDATIONS

The following recommendations are made as a result of the findings in this report:

A. Specific plans should be made to raise the level of reading closer to national norms.

B. Efforts should be made to maintain the level of effectiveness.

C. Attention should be given to ways of increasing per cent of attendance.

The faculty and principal should be commended for their efforts and concern for the pupils as individuals. The faculty is encouraged to continue to seek out approaches that will raise the level of acceptability to match the gains made in effectiveness.

ED 078111

RESEARCH AND DEVELOPMENT REPORT

Vol. VI, No. 41 May, 1973

# Capitol Avenue Elementary School
1971-72

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# I. INTRODUCTION

Capitol Avenue Elementary School is located in the southwest section of the Model Cities area in the Summerhill Community. The school served approximately 700 pupils, preschool through the seventh grade, of which 95 per cent came from low income families. The school population in 1970-71 was 710 and in 1971-72 was 641. Most of the families are very mobile. Many move to the area from small towns, and move out as they find better housing in other neighborhoods. The average family consists of five members living in low rent housing. Less than five per cent of the families own their own home.

The school received funds and materials from several sources for special programs which supplemented the regular instructional program. These sources included the Comprehensive Instructional Program (CIP), Education Professions Development Act, Model Cities, and Title I. These resources were integrated into an instructional enrichment program which enabled the school to more successfully meet the needs of the community.

# II. NEEDS

The identified needs of the participants were the foundation for the development of the school year plan. The goals, behavioral objectives, and critical variables were determined from and were to satisfy the identified needs. These needs were as follows:

A. To acquire basic reading and mathematical skills.

B. To develop basic communication skills.

C. To develop a more positive attitude toward self-concept.

D. To develop better interpersonal relations.

E. To improve school attendance habits and attitudes toward learning.

## III. GOALS

The primary goal of Capitol Avenue School was to increase the reading and mathematical abilities of the pupils through concentration on a program which was directed toward the development of word attack skills, vocabulary skills, and problem solving skills. The secondary goals were as follows:

A. To provide enrichment experiences through the use of film loops, slides, sound projectors, television, record players, video tapes, educational games, story hour, music, and art.

B. To provide lower grade under achievers with additional training through a tutoring program using upper grade under achievers.

C. To improve the pupils' attendance habits through various activities offered by the school.

D. To increase the pupils' knowledge of their environment through field trips to places of interest.

E. To provide the upper grade pupils with an opportunity to improve mathematical skills through practical experience.

F. To improve oral communication of the pupils through their participation in assembly programs.

G. To increase parental involvement in various school activities.

## IV. BEHAVIORAL OBJECTIVES

The behavioral objectives to be met were as follows:

A. Eighty-five per cent of the first grade pupils would complete the Wisconsin Design for Reading Skill Development, Level A, with at least eighty per cent accuracy.

B. Thirty-four per cent of the first grade pupils would complete the Wisconsin Design for Reading Skill Development, Level B, with at least eighty per cent accuracy.

C. Eighty per cent of the first grade pupils would complete the Comprehensive Instructional Program (CIP) diagnostic test, A-1 through C-2, with eighty per cent accuracy.

D. Seventy-five per cent of the first grade pupils would complete the Scott Foresman Series, Readiness and Preprimer Program Tests with seventy per cent accuracy.

E. Thirty-five per cent of the first grade pupils would complete the Primer Tests with at least seventy per cent accuracy.

F. Ten per cent of the pupils in the first grade would complete the Scott Foresman Series, Book I test, with at least seventy per cent accuracy.

G. Ninety per cent of the second grade pupils would complete the CIP diagnostic tests, A-1 through B-4, with at least eighty per cent accuracy.

H. Fifty per cent of the pupils in the second grade would complete the CIP diagnostic tests, A-1 through C-3, with at least eighty per cent accuracy.

I. Twenty per cent of the second grade pupils would increase their reading skills at the rate of one month gain for each month of instruction as measured by the Metropolitan Achievement Tests (MAT).

J. Fifty per cent of the second grade pupils would show at least a 0.5 gain in grade level for reading skills as measured by the Metropolitan Achievement Tests (MAT).

K. Twenty per cent of the second grade pupils would complete the Wisconsin Design for Reading Skill Development, Level A and Level B, with at least eighty per cent accuracy.

L. Sixty per cent of the second grade pupils would complete the Wisconsin Design for Reading Skill Development, Level A and four skills on Level B, with at least eighty per cent accuracy.

M. Twenty per cent of the second grade pupils would complete at least fifty per cent of the Wisconsin Design for Reading Skill Development, Level A, with at least eighty per cent accuracy.

N. Ninety per cent of the third grade pupils would complete the CIP diagnostic reading tests, A-1 through B-4, with at least eighty per cent accuracy.

O. Thirty-five per cent of the third grade pupils would complete the CIP diagnostic reading test, A-1 through C-3, with at least eighty per cent accuracy.

P. Fifty-five per cent of the third grade pupils will show at least a 0.3 gain in grade level for reading as measuredy by the Metropolitan Achievement Tests (MAT).

Q. Thirty-five per cent of the third grade pupils would increase their reading skills at the rate of one month gain for each month of instruction as measured by the Metropolitan Achievement Tests

R. Seventy per cent of the third grade pupils would increase their reading skills at the rate of at least 0.25 months gain for each month of instruction as measured by the Metropolitan Achievement Tests (MAT).

S. Thirty per cent of the third grade pupils would complete the Wisconsin Design for Reading Skill Development, Level A, Level B, and Level C, with at least eighty per cent accuracy.

T. Ninety per cent of the fourth grade pupils would complete the CIP diagnostic reading tests, A-1 through B-4, with at least eighty per cent accuracy.

U. Fifty-eighty per cent of the pupils in fourth grade would complete the CIP diagnostic reading tests, C-1 through C-10, with at least eighty per cent accuracy.

V. Twenty-five per cent of the pupils in the fourth grade would complete the CIP diagnostic test, D-1 and D-2, with at least eighty per cent accuracy.

W. Eighty per cent of the fourth grade pupils would complete the Wisconsin Design for Reading Skill Development, Level C, with at least eighty per cent accuracy.

Each of the supportive programs had specific goals and objectives which are discussed in Section VI.

## V. CRITICAL VARIABLES

Critical variables which were observed and measured to reflect the desired changes were as follows:

- A. Reading Skills.
  - 1. Word Attack
  - 2. Comprehension
  - 3. Vocabulary.
- B. Oral Communication Skills.
  - 1. Oral Language
  - 2. Self Expression
  - 3. Imaginative Play.
- C. Self-Concept.
- D. Attendance Rate.
- E. Attitude Toward Learning.
- F. Interpersonal Relationships.
- G. Parental Involvement.

## VI. SUPPORTIVE PROJECTS

The supportive projects as well as the existing educational program were directed toward satisfying the identified needs. At Capitol Avenue the supportive projects were funded by the Comprehensive Instructional Program (CIP), the Education Professions Development Act (EPDA), the Model Cities Educational Component, and the Title I Program.

### A. Comprehensive Instructional Program (CIP)

The CIP focused on diagnostic teaching of reading in grades one through four. The goal was to provide the pupils with the skills in reading for educational growth. The objective was for each pupil to gain one month for each month of instruction.

B. Career Opportunities Program (COP)

The COP is a training program for selected paraprofessionals The goal is to upgrade paraprofessionals to certified teachers. The objective was: those pupils being taught by a COP team will show a greater gain in reading than similar pupils not being taught by COP teams. The goal was to be met through inservice training and availability of certain college courses for those in the program.

C. Model Cities Educational Component

The Model Cities Program offered to schools in the Model Neighborhood Area (MNA), educational programs which would improve attendance and achievement of pupils, decrease dropouts, provide day care services and lower adult illiteracy and unemployment. The community residents selected programs which best suited the community needs. Capitol Avenue school participated in the following activities:

1. Breakfast Program

The goal of the Breakfast Program was to provide a nutritional breakfast to as many pupils as desired it. The objective was to help increase last year's attendance rate.

2. Expanded Youth Program

The Expanded Youth Program was to provide the pupils with an enrichment oriented day care service after and before school hours. The objectives were to improve the pupils self-concept and to develop positive attitudes toward school.

3. Preschool Program

The Preschool Program goals were to provide educationally directed day care services to children of working mothers and to prepare the children for kindergarten and first grade. The objectives of the program were to teach the child basic learning and motor skills, and to develop good group play, social, and attendance habits.

4. Teacher-Pupil Services Program

The goal of the Teacher-Pupil Services Program was to help increase the attendance rate of the pupils. The objective was to improve home school relationships. An attendance aide was used to improve attendance habits, attitudes toward school, teachers, and peers, and to involve parents in school activities. The social worker handled the referral cases from the attendance aide.

D. Title I Program

The Title I Program was designed to provide additional educational training to those pupils found to be educationally deprived. Capitol Avenue School participated in the Lead Teacher, Youth-Tutoring-Youth (YTY), and Kindergarten projects.

1. Lead Teacher

The goal of the lead teacher project was to train the classroom teacher in diagnosing, prescribing, and preparing instructional materials which would benefit the pupils. The project objective was to improve the reading skills of the educationally deprived.

2. Youth-Tutoring-Youth (YTY)

The YTY project goal was to provide the educationally deprived pupil with additional educational training. The objective was to use underachieving high school pupils to tutor underachieving pupils in grades two through four, resulting in educational growth in both the tutor and the tutee.

3. Kindergarten

The goal of the Kindergarten project was to provide the kindergarten teachers with aides to allow for more individualized instruction. The objective was to have the children better prepared for entry into the first grade.

E. Education Professions Development Act (EPDA)

The EPDA project was a cooperative effort between the Atlanta Public School System and Atlanta University. The goal of the project was to provide classroom teachers with the techniques and strategies of special education and training. The objective was to provide the pupils with additional specialized instruction for educational growth.

## VII. MANAGEMENT AND CONTROL

A. Administration

The teacher-pupil ratio in Capitol Avenue School was one to twenty-five. Thirteen members of the faculty including the principal and lead teacher took part in the Education Professions Development Act (EPDA) program. The principal maintained good community relations through activities in the community and the Community School program. Special attention was given to two publications, the Capitol Avenue Echo and Highlights, which kept community informed of school activities. Stress was placed on life-oriented experiences for all pupils.

B. Instructional Organization

The grades pre-kindergarten through seven were in self-contained units. The Wisconsin Reading Plan was used as a diagnostic tool. Six itinerate teachers were used throughout the year. Two special programs, Man-A Course of Study and Careers A-Z, were used for life readiness preparation through team teaching. Stress in grades six and seven was placed on preparation for life experience.

## VIII. PROCESS

In addition to the supportive programs and personnel as previously covered, examples of activities that were used to achieve the goals and behavioral objectives include the following:

A. Extensive community involvement by the principal and the faculty of Capitol Avenue School.

B. The Careers A-Z program was started by a sixth grade teacher at Capitol School. It was directed toward activity sixth and seventh graders in receiving career guidance and training. The objective was to aid the pupils in finding their way into productive fields of endeavor and prevent dropouts. Film, field trips, and outside resources were used as the basic motivational technique.

C. The Capitol Echo which is published yearly and Capitol Highlights which is published monthly to keep the community informed of the activities of the school and the pupils.

D. Miss Capitol Avenue contest and coronation provided activities involving both the school and the community.

E. A very active student council with rap sessions and open elections to acquaint the pupils with the democratic process.

F. The Wisconsin Reading Plan for further development in reading and diagnosis of reading problems.

G. Man-A Course of Study was a special program for seventh graders in social studies. It attempted to stimulate thought about the nature of man and to trace the concept that acceptable behavior is determined by the culture of man.

## IX. EVALUATION PLAN

The projects at Capitol Avenue School will be evaluated on the basis of goal achievement and behavioral objective attainment. The plan for evaluation is as follows:

A. Instruments

1. Scores for the Wisconsin Design for Reading Skill Development and Scott Foresman Series reading program tests were used to measure the level the pupils attained in reading.

2. Rate of gain for reading were determined from the differences between the pre and post Metropolitan Achievement Tests (MAT) scores.

3. Reading achievement levels for the CIP project were measured on the basis of the third CIP test scores.

4. Per cent of attendance improvement was determined from the school attendance records.

5. The pre and post scores on the basecheck test were used to determine gains made by the preschool children.

6. Breakfast program participation rate was determined from the records of the daily meals served.

7. Teacher-Pupil Services Program performance was determined from the monthly output measures from both the attendance aide and the social worker.

8. Cost effectiveness was determined on a per-pupil expenditure basis for each grade.

B. Methodology

Evaluation of the accomplishments for the 1971-72 school year will take four approaches: (1) evaluation of Behavioral Objectives, (2) evaluation of Supportive Programs, (3) a review of test performance for 1971-72, and (4) a longitudinal review of test data for 1970-71 and 1971-72 based on effectiveness and acceptability. Included will be comparisons of scores in reading against national norms, city-wide norms, and frequencies, gains, and posttest scores.

## X. FINDINGS

### A. Evaluation of Behavioral Objectives

1. Eighty-five per cent of the first grade pupils would complete the Wisconsin Design, Level A, with at least eighty per cent accuracy. Forty-three pupils did achieve this level which was 53 per cent of the total. The objective was not achieved.

2. Thirty-four per cent of the first grade pupils would complete the Wisconsin Design, Level B, with eighty per cent accuracy.

   None reached the level; the objective was achieved.

3. Eighty per cent of the first grade pupils would complete the CIP diagnostic tests, A-1 through C-2 with eighty per cent accuracy.

   Fifteen pupils reached this level which was twenty-one per cent. The objective was not achieved.

4. Seventy-five per cent of the first grade pupils would complete the Scott Foresman Readiness and Preprimer tests with seventy per cent accuracy.

   Seventy children did complete it which was eighty-one per cent of the total. The objective was achieved.

5. Thirty-five per cent of the first grade pupils would complete the primer level tests with at least eighty per cent accuracy.

   Thirty-two pupils completed it, which was thirty-seven per cent. The objective was achieved.

6. Ten per cent of the pupils in the first grade would complete the Scott Foresman Series, Book I tests with at least seventy per cent accuracy.

   Thirteen completed which was fifteen per cent. The objective was achieved.

7. Ninety per cent of the second grade pupils would complete the CIP diagnostic tests, A-1 through B-4, with at least eighty per cent accuracy.

   Forty-seven pupils did which was sixty-three per cent. The objective was not reached.

8. Fifty per cent of the pupils in second grade would complete the CIP diagnostic tests, A-1 through C-3, with at least eighty per cent accuracy.

   Thirty-eight pupils achieved this which was fifty-one per cent. The objective was reached.

9. Twenty per cent of the second grade pupils would increase reading skills at the rate of one month gain for each month of instruction. As shown in Table 1 (page 13), thirteen pupils gained more than 0.6 which was twenty per cent. The objective was achieved.

10. Fifty per cent of the second grade pupils would show at least a 0.5 gain in grade level for reading skills.

    Twenty-eight pupils gained at least 0.5, as shown in Table 1 (page 13) which was forty-three per cent. The objective was not achieved.

11. Twenty per cent of the second grade pupils would complete the Wisconsin Design, Level A and B, with at least eighty per cent accuracy.

    Only fourteen completed this level, which was fifteen per cent. The objective was not achieved.

12. Sixty per cent of the second grade pupils would complete the Wisconsin Design, Level A and four skills on Level B, with eighty per cent accuracy.

    Fifty-six did complete which was fifty-eight per cent. The objective was achieved.

13. Twenty per cent of the second grade pupils would complete at least fifty per cent of the Wisconsin Design, Level A, with eighty per cent accuracy.

    Fifty-six pupils completed this level which was eighty-three per cent. The objective was achieved.

14. Ninety per cent of the third grade pupils would complete the CIP diagnostic tests, A-1 through B-4, with a minimum of eighty per cent accuracy.

    Forty-one pupils completed it which was sixty-five per cent. The objective was not reached.

15. Thirty-five per cent of the third grade pupils would complete the CIP diagnostic tests, A-1 through C-3, with a minimum of eighty per cent accuracy.

    Thirty-two pupils completed it which was fifty-one per cent. The objective was achieved.

## TABLE 1

## READING GAINS ON METROPOLITAN ACHIEVEMENT TESTS BETWEEN PRETEST AND POSTTEST*

| | Negative to 0 | | .1 to .3 | | .4 to .6 | | .6 to .9 | | 1.0 or above | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grade | No. | Percent | No. | Percent | No. | Percent | No. | Percent | No. | Percent | Gain |
| 2 | 11 | 18 | 15 | 25 | 23 | 38 | 11 | 18 | 1 | 2 | 0.4 |
| 3 | 5 | 11 | 5 | 11 | 10 | 21 | 11 | 23 | 16 | 34 | 0.8 |
| 5 | 18 | 31 | 5 | 8 | 4 | 7 | 5 | 8 | 27 | 46 | 1.4 |
| 6 | 26 | 47 | 9 | 16 | 6 | 11 | 4 | 7 | 10 | 18 | 0.2 |
| 7 | 25 | 40 | 9 | 15 | 7 | 11 | 7 | 11 | 14 | 23 | 0.3 |

*Six month period.

16. Fifty-five per cent of the third grade pupils would show at least a 0.3 gain in reading.

Forty-two pupils achieved this level which was eighty-one per cent. The objective was reached.

17. Thirty-five per cent of the third grade pupils would increase reading skills at the rate of one month gain for one month of instruction (0.6).

Thirty pupils achieved this which was fifty-eight per cent. The objective was achieved.

18. Seventy per cent of the third grade pupils would increase reading skills at the rate of at least 0.25 months for each month of instruction.

Forty-three pupils achieved this, which was eighty-three per cent. The objective was reached.

19. Thirty per cent of the third grade pupils would complete the Wisconsin Design, Level A, B, and C, with eighty per cent accuracy.

None achieved this objective.

20. Ninety per cent of the fourth grade pupils would complete the CIP diagnostic tests, A-1 through B-4, with at least eighty per cent accuracy.

Fifty-seven pupils completed which was seventy per cent. The objective was not reached.

21. Fifty-eight per cent of the fourth grade pupils would complete the CIP diagnostic tests, C-1 through C-10, with eighty per cent accuracy.

Twenty-six pupils completed, which was thirty-three per cent. The objective was not achieved.

22. Twenty-five per cent of the fourth grade pupils would complete the CIP diagnostic tests, D-1 and D-2, with eighty per cent accuracy.

Only two achieved this level. The objective was not reached.

23. Eighty per cent of the fourth grade pupils would complete the Wisconsin Design, Level C.

Twenty-nine pupils completed it, which was thirty-three per cent. The objective was not reached.

B. Evaluation of Supportive Programs

The supportive programs each had a goal and/or objective that was related to specific needs in the school. Each should be evaluated in respect to its accomplishments in reaching this goal and/or objective.

1. Comprehensive Instructional Program (CIP)

CIP had as an objective to have each pupil in grades two and three gain one month in reading for each month of instruction. This would be a gain of 0.6 due to the six month pre and post test period. Table 1 (page 13) shows that the mean gain for grade 3 was 0.8 so the objective was reached. The second grade gained 0.4 which was below the expected level.

2. Career Opportunities Program (COP)

The objective was to have pupils taught by a COP team show greater gains than other pupils. This program could not be evaluated because the COP team worked with the pre-kindergarten groups and testing was not done on a comparative basis.

C. Model Cities Educational Component

1. Breakfast Program

The goal was to provide a nutritional breakfast to all children who desired it. The program started in March, 1972 and approximately 200 children per day were served breakfast. The objective was to help reduce absenteeism and increase the per cent of attendance. Attendance did increase in this period by 1.2 per cent.

2. Expanded Youth Program

The goal of the Expanded Youth Program was to provide pupils with enrichment oriented day care service before and after school hours. It is impossible to determine how many children took part because reports were not made on this particular program in the school.

3. Preschool Program

The goal was to provide educationally directed day care service to the children of working mothers and to prepare the children for kindergarten and first grade. The objective was to teach basic learning skills and motor skills. The per cent of gain between pre and post on the basecheck test was 51.5 per cent. The criteria set by Model Cities was 25 per cent so the objective was achieved.

4. Teacher-Pupil Services Program

The goal of the Teacher-Pupil Services Program was to help increase the attendance rate of the pupils. There was a gain of 1.2 per cent in attendance over the previous year, so the objective was reached.

D. Title I Program

1. Lead Teacher

The goal of the lead teacher was to train the classroom teacher in diagnosing, prescribing, and preparing instructional materials to benefit the pupils. Aides were used in grades two and three to assist the classroom teacher in upgrading reading skills. Grade two did not achieve the goal that was set. Grade three did satisfactorily with a mean gain of .8 as shown on Table 1 (page 13) Overall only grades three and five had appreciable gains.

2. Youth-Tutoring-Youth (YTY)

No information was recorded so this program cannot be evaluated.

3. Kindergarten

The goal of the kindergarten project was to provide the teachers with aides to allow for more individualized instruction. Two aides were used in the kindergarten program. The Metropolitan Readiness Tests (MRT) given in October, 1972, showed a mean score of 36. For first graders who had kindergarten experience this was below the national average of 54; the goal of the program was not achieved.

## E. Education Professions Development Act (EPDA)

The goal of the program was to provide the classroom teacher with techniques and strategies in special education through special training. We have no way to evaluate the achievements of this program.

## F. Evaluation of Test Performance

Table 2 (page 18) shows that grade five was the only grade above city-wide norms and close to national norms. All other grades were from 0.8 to 3.2 years behind the national norms and were also behind city-wide averages. Posttest scores indicate that the Capitol Avenue School reading program was disappointing and was below expectations. As shown in Table 1 (page 13), only grades three and five made appreciable gains between pre and post tests in the past year. The third grade gain was 0.8. The fifth grade gain was 0.4.

## G. Longitudinal Data

This is an attempt to track student progress in the school. Table 3 (page 19) shows grade level gain and rate of gain comparisons for 1970-71 and 1971-72. Further analysis of reading scores was made on the basis of predicted achievement for each grade level. A regression equation employing factors of attendance, mobility, social economic status, pupil teacher ratio, percentage of pupils passing, and pretest scores formulated predictions of posttest scores and resulting gains. A ratio of actual gains to predicted gains yielded a percentage described as a gain rate of effectiveness. Another ratio of the actual posttest scores divided by the national norm for the respective grade level resulted in an index of acceptability. Table 4 (page 20) shows the changes in the gain rate of effectiveness and the index of acceptability. The gain rate of effectiveness for 1971-72 was fifty eighty points higher than for 1970-71. All grades increased their gain rate of effectiveness over the previous year with the third and fifth grades showing the

TABLE 2

ANALYSIS OF POSTTEST SCORES IN READING
ON METROPOLITAN ACHIEVEMENT TESTS

| Grade | 24 Months or More* |  | 12-23 Months* |  | 3-11 Months |  | Within 2 Months of Grade Level or Above |  | Posttest Level | City Wide Level | National Level |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent |  |  |  |
| 2 | --- | --- | 25 | 41 | 33 | 54 | 3 | 5 | 1.9 | 2.4 | 2.7 |
| 3 | 4 | 9 | 25 | 53 | 11 | 23 | 7 | 15 | 2.6 | 3.0 | 3.7 |
| 4 | 29 | 41 | 34 | 49 | 5 | 7 | 2 | 3 | 3.0 | --- | 4.7 |
| 5 | 22 | 37 | 11 | 19 | 4 | 7 | 22 | 37 | 5.2 | 3.9 | 5.7 |
| 6 | 43 | 78 | 6 | 11 | 3 | 5 | 3 | 5 | 4.1 | 4.4 | 6.7 |
| 7 | 56 | 90 | 2 | 3 | 2 | 3 | 2 | 3 | 4.5 | 4.8 | 7.7 |
|  | 154 | 44 | 103 | 29 | 58 | 16 | 39 | 11 |  |  |  |

*National Norms.

## TABLE 3

## COMPARISON OF POSTTEST LEVELS, GAIN, AND RATE OF GAIN FOR 1970-71 AND 1971-72

### Grade Level (Posttest)

| Grade | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| 70-71 | 1.64 | 2.46 | 3.01 | 3.98 | 4.06 | 4.60 |
| 71-72 | 1.87 | 2.64 | 2.97 | 5.20 | 4.06 | 4.49 |

### Gain (Pre-Post)

| Grade | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| 70-71 | 0.30 | 0.61 | 0.53 | 0.31 | -0.01 | 0.23 |
| 71-72 | 0.40 | 0.84 | -- | 1.45 | 0.16 | 0.26 |

### Rate of Gain

| Grade | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| 70-71 | 0.50 | 1.00 | 0.80 | 0.50 | -0.02 | 0.40 |
| 71-72 | 0.65 | 1.35 | -- | 2.36 | 0.26 | 0.42 |

## TABLE 4

## READING TEST DATA FOR 1971-72

| Grade | Actual |  | Acceptable | Predicted | Gain |  | Gain Rate of Effectiveness |  | Index of Acceptability |  |
|---|---|---|---|---|---|---|---|---|---|---|
|  | Pre | Post | Post | Post | Actual | Predicted | 1971-72 | 1970-71 | 1971-72 | 1970-71 |
| 2 | 1.4 | 1.6 | 2.7 | 1.6 | 0.2 | 0.2 | 100 | 25 | 59 | 56 |
| 3 | 1.5 | 2.4 | 3.7 | 2.0 | 0.9 | 0.5 | 180 | 120 | 65 | 65 |
| 4 | 2.1 | 2.9 | 4.7 | 2.8 | 0.8 | 0.7 | 114 | 75 | 62 | 57 |
| 5 | 3.2 | 3.9 | 5.7 | 3.6 | 0.7 | 0.4 | 175 | 80 | 68 | 63 |
| 6 | 3.6 | 3.4 | 6.7 | 3.9 | -0.2 | 0.3 | - 67 | -100 | 51 | 51 |
| 7 | 3.9 | 4.1 | 7.7 | 4.1 | 0.2 | 0.2 | 100 | 53 | 53 | 53 |
|  |  |  |  |  | Average |  | 100 | 42 | 60 | 58 |

highest gains. The average of 100 makes this school effective and the faculty is to be commended for this achievement.

The index of acceptability only increased two points. The fifth grade had the highest index of acceptability and this was only sixty-eight per cent of the acceptable post score. Overall the range was from 1.1 years behind to 3.6 years behind acceptable post scores. This is far below the desired level. This data is shown in Table 4 (Page 20 ).

## XI. COST ANALYSIS

The data presented in Table 5 (page 22) shows the relative cost for a one grade unit of gain based upon the rate of gain for 1971-72 and the amount spent. In order to compute these costs, expenditures were taken from the General Funds Report June, 1972, and the Trust and Agency Report, June, 1972. From these figures estimates were made of the per pupil cost from general funds and special projects (Compensatory Funds). These data also show the cost in compensatory funds for each unit of effectiveness as determined in the 1972 Effective? Acceptable? Study. The reader is cautioned that these data are not exact or finite. Broad estimates were made based upon information obtained from the school staff relative to the utilization of resources. According to these data the cost was high in all grades.

The fifth grade gain was highest and the cost was lowest. In relationship to effectiveness there are no indications that funds spent influenced the effectiveness of the reading program. The question must be asked as to what factors did contribute to the variances.

## XII. CONCLUSIONS

Based on discussion with the principal and an analysis of the data, the following conclusions were drawn:

A. Only the third and fifth grade gained well.

B. The CIP test and the Wisconsin test should not be used for evaluation, but strictly as diagnostic tools.

## TABLE 5

### COST ANALYSIS OF READING GAINS BY GRADES
### TOTAL DAILY AVERAGE ATTENDANCE (ADA)
### K-7 -- N = 641

| | GRADES | | | | | |
|---|---|---|---|---|---|---|
| | Second | Third | Fifth | Sixth | Seventh | TOTAL |
| Average Daily Attendance | 81 | 61 | 76 | 70 | 71 | 571 |
| Per Pupil Cost | | | | | | |
| A. General Funds | | | | | | |
| 1. Regular | | | | | | |
| a. Salary | $ 375 | $ 375 | $ 375 | $ 375 | $ 375 | $ 375 |
| b. Non-Salary | 78 | 78 | 78 | 78 | 78 | 78 |
| c. Total | $ 453 | $ 453 | $ 453 | $ 453 | $ 453 | $ 453 |
| 2. CIP | | | | | | |
| a. Salary | $ -0- | $ -0- | $ -0- | $ -0- | $ -0- | $ -0- |
| b. Non-Salary | 1 | 1 | 1 | 1 | 1 | 1 |
| c. Total | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 |
| 3. Total General Funds | | | | | | |
| a. Salary | $ 375 | $ 375 | $ 375 | $ 375 | $ 375 | $ 375 |
| b. Non-Salary | 79 | 79 | 79 | 79 | 79 | 79 |
| c. Total | $ 454 | $ 454 | $ 454 | $ 454 | $ 454 | $ 454 |
| B. Special Projects | | | | | | |
| 1. Model Cities | | | | | | |
| a. Salary | $ 44 | $ 44 | $ 44 | $ 44 | $ 44 | $ 44 |
| b. Non-Salary | 1 | 1 | 1 | 1 | 1 | 1 |
| c. Total | $ 45 | $ 45 | $ 45 | $ 45 | $ 45 | $ 45 |
| 2. EPDA (Atlanta University) | | | | | | |
| a. Salary | $ 18 | $ 18 | $ 18 | $ 18 | $ 18 | $ 18 |
| b. Non-Salary | 4 | 4 | 4 | 4 | 4 | 4 |
| c. Total | $ 22 | $ 22 | $ 22 | $ 22 | $ 22 | $ 22 |
| 3. EPDA (Federal) | | | | | | |
| a. Salary | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 |
| b. Non-Salary | -0- | -0- | -0- | -0- | -0- | -0- |
| c. Total | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 |
| 4. ESAP | | | | | | |
| a. Salary | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 | $ 1 |
| b. Non-Salary | 1 | 1 | 1 | 1 | 1 | 1 |
| c. Total | $ 2 | $ 2 | $ 2 | $ 2 | $ 2 | $ 2 |
| 5. Title I | | | | | | |
| a. Salary | $ 78 | $ 78 | $ 45 | $ 45 | $ 45 | $ 58 |
| b. Non-Salary | 1 | 1 | 1 | 1 | 1 | 1 |
| c. Total | $ 79 | $ 79 | $ 46 | $ 46 | $ 46 | $ 59 |
| 6. Total Special Funds | | | | | | |
| a. Salary | $ 142 | $ 142 | $ 109 | $ 109 | $ 109 | $ 122 |
| b. Non-Salary | 7 | 7 | 7 | 7 | 7 | 7 |
| c. Total | $ 149 | $ 149 | $ 116 | $ 116 | $ 116 | $ 129 |
| C. Total Per Pupil Cost | | | | | | |
| 1. General Funds | $ 454 | $ 454 | $ 454 | $ 454 | $ 454 | $ 454 |
| 2. Special Funds | 149 | 149 | 116 | 116 | 116 | 129 |
| 3. Total Per Pupil Cost | $ 603 | $ 603 | $ 570 | $ 570 | $ 570 | $ 583 |
| Rate of Reading Gain (Per Cent) | 0.65 | 1.35 | 2.36 | 0.26 | 0.42 | |
| Projected Cost for One Grade Unit of Gain | | | | | | |
| A. General Funds | $ 698 | $ 336 | $ 192 | $ 1,746 | $ 1,081 | $ 809 |
| B. Special Funds | 229 | 110 | 49 | 446 | 276 | 222 |
| C. Total | $ 927 | $ 446 | $ 241 | $ 2,192 | $ 1,357 | $ 1,031 |
| Gain Rate of Effectiveness | 100 | 180 | 175 | - 67 | 100 | |
| Expenditure (Per ADA) of Compensatory Funds for Each Unit of Effectiveness | $ 1.49 | $ 0.83 | $ 0.66 | $ -0- | $ 1.16 | $ 1.05 |

C. The effectiveness gain rate was excellent. The acceptability level was below what should be expected.

D. Good community relations were maintained by the principal and his staff.

E. The amount of funds spent did not relate significantly to the performance of the pupils.

F. The levels of expectations of pupil performance were rather low.

## XIII. RECOMMENDATIONS

The following recommendations are made as a result of the fundings in this report:

A. Concentrate on reading in all grades.

B. Explore ways to involve parents in academic as well as social activities with the pupils.

C. Stress gains in all grade levels to raise the acceptability level. If the gain rate of effectiveness is maintained, acceptability will automatically rise and the school will be closer to the acceptable index.

D. Develop and implement a plan which would result in a positive, significant correlation between pupil achievement and expenditures.

E. Refine instructional objectives, on all grade levels, in order to determine an adequate systems approach to instruction and to establish appropriate of expectancies of pupil performance.

RESEARCH AND DEVELOPMENT REPORT

Vol. VI, No. 46 May, 1973

# P.L. DUNBAR ELEMENTARY SCHOOL
1971-72

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## I. INTRODUCTION

P.L. Dunbar Elementary School is located at 403 Richardson Street, S.W., in the Mechanicsville section of the Model Cities area. Housing is primarily low rent apartment projects and rental dwellings. Eighty-two per cent of the pupils come from families with incomes below $3,000 per year. The school serves pupils from pre-kindergarten through the sixth grade. The enrollment in 1970-71 was 821 pupils and in 1971-72 was 739 pupils. The mobility rate has stabilized over the past two years. It was .26 in 1970-71 and .20 in 1971-72.

Dunbar School qualified, because of low-income levels, for funds and services from special projects to help the school meet the needs of the pupils and the community. These included the Comprehensive Instructional Program, Career Opportunities Program, Title I, and the Model Cities Educational Component. These resources were used to create and sustain activities designed to overcome the educational and cultural deficiencies of the pupils.

## II. NEEDS

The identified needs of the participants was the foundation for the development of the school year plan. The goals, behavioral objectives, and critical variables were determined from and were to satisfy the identified needs. The needs were as follows:

A. For the pupils to acquire basic reading skills.

B. For the pupils to be exposed to various enrichment experiences.

C. For the pupils to develop a more positive self-concept.

D. For parents to be more aware and involved in school activities.

E. For the pupils to improve their school attendance habits.

F. For the pupils to have day care services before and after school hours.

## III. GOALS

The primary goals of Dunbar School were to increase the pupils reading skills and to have the pupils develop a more positive self-concept. The secondary goals were as follows:

A. To improve the pupils enrichment experiences through various media, field trips, social and cultural activities.

B. To provide educationally oriented day care services through the extension of the school day.

C. To improve the pupils attendance habits through the various activities offered by the school.

D. To improve parental involvement in school activities through better communications between school and home.

## IV. BEHAVIORAL OBJECTIVES

The following objectives were formulated to evaluate the extent to which the school was meeting the needs of the pupils and the goals of the school program. Behavioral objectives to be met were as follows:

A. The pupils in grades two, three, five, six, and seven will show at least a 0.5 gain in reading skills as measured by the Metropolitan Achievement Tests (MAT).

B. Children in pre-school will show an increase of 45 per cent in motor and learning skills as measured by the Basecheck test.

C. The per cent of attendance will increase by at least one per cent over last year's rate.

Specific goals and objectives for the supportive programs are shown in Section VI, Supportive Projects.

## V. CRITICAL VARIABLES

The critical variables which were observed and measured to reflect the desired changes were as follows:

A. Reading skills

1. Comprehension
2. Vocabulary
3. Word attack

B. Self-concept

C. Attendance rate

## VI. SUPPORTIVE PROJECTS

The supportive projects as well as the existing educational program were directed toward satisfying the identified needs at Dunbar. The supportive projects were funded by the Comprehensive Instructional Program (CIP), the Career Opportunities Program (COP), the Model Cities Educational Component and the Title I Program.

### Comprehensive Instructional Program (CIP)

CIP focused on diagnostic teaching of reading in grades 1-3 and mathematics in grades 4-6. The goal was to provide the pupils with the skills in reading and mathematics necessary for educational growth. The objective was for each pupil to gain one month for each month of instruction.

### Career Opportunities Program (COP)

COP is a training program for selected paraprofessionals. The goal was to upgrade paraprofessionals to certified teachers. The objective was those pupils being taught by a COP team would show a greater gain than similar pupils not taught by a COP team. The goal was to be met through inservice training and availability of certain college courses to those aides in the program.

## Model Cities Educational Component

The Model Cities Program offered, to schools in the Model Neighborhood Area (MNA), educational programs that would increase attendance and achievement of pupils, decrease dropouts, provide day care services, and lower adult illiteracy and unemployment. The community residents selected the programs which best suited the community needs. Dunbar school participated in the following activities:

### A. Breakfast Program

The goal of the Breakfast Program was to provide a free nutritional breakfast to as many pupils as desired it. The objective was to help increase last years attendance rate by one per cent.

### B. Extended Day Program

The Extended Day Program was directed toward the goal of providing enrichment and day care services for pupils before and after school. The objectives of the program were to improve the pupils self-concept, to develop the pupils positive attitude toward school, and to instill academic confidence in the pupils.

### C. Preschool Program

The Preschool Program goals were to provide educationally directed day care services to children of working mothers and to prepare the children for kindergarten and first grade. The objectives of the program were to teach the children basic learning and motor skills, and develop good group play, social and attendance habits.

### D. Teacher-Pupil Services

The goal of the Teacher-Pupil Service Program was to help increase the attendance by one per cent above the rate of last year. The objective was to improve home-school relationships. An attendance aide was used to improve attendance habits, attitude toward school, teachers, and peers and to involve parents in school activities. The social worker handled the referral cases from the attendance aide.

## Title I Program

The Title I Program was designed to provide additional educational training to those pupils found to be educationally deprived.

### A. Lead Teacher

The goal of the lead teacher project was to train the classroom teacher in diagnosing, prescribing and preparing, instructional materials which would benefit the pupils. The project objective was to improve the reading skills of the educationally deprived pupils.

### B. Youth-Tutoring-Youth (Y-T-Y)

The goal of the Y-T-Y project was to provide the educationally deprived pupils with additional educational training. The objective was to use under achieving high school pupils to tutor underachieving pupils in grades 2-4.

### C. Kindergarten

The goal of the kindergarten project was to provide the kindergarten teachers with aides to allow for more individualized instruction. The objective was to have the children better prepared for entry into the first grade.

## VII. MANAGEMENT AND CONTROL

### Administration

The teacher-pupil ratio at Dunbar was one to twenty-eight. The principal concentrated on and emphasized an open and innovative teaching program. The teachers were given liberty to try new ideas and new techniques in developing plans for better teaching methods to raise the levels of the underachievers in the school. Overall the atmosphere was one of openness and cooperation among all of the faculty.

### Instructional

The stress in the instructional program was on individualization of instruction. Modified team teaching was used. Individualized grouping to enhance the potential in non-graded classes was emphasized by the teachers, lead teacher, and principal. Stress was placed on the development of techniques to help upgrade the low achieving pupils in all areas.

## VIII. PROCESS

In addition to the supportive programs and personnel as previously covered, examples of activities that were used to achieve the goals and behavioral objective included the following:

A. Rap sessions to develop better teacher-pupil relationships.

B. Staff demonstration, role playing, and workshops for the teachers to exchange ideas and techniques.

C. Individualized instruction and individualized groups for better direction in all programs.

D. Monthly birthday projects for development of self-concepts in the pupils.

E. Parental involvement through visitations and open assemblies for the parents.

## IX. EVALUATION PLAN

The programs and projects at Dunbar were evaluated on the basis of goal achievement and behavioral objective achievement. The plan for evaluation was as follows:

Instruments

A. Rate of gain for reading skills would be determined from differences in the pre and post scores on the Metropolitan Achievement Tests (MAT).

B. Per cent of attendance improvement will be determined from school attendance records.

C. Pupil attitude changes were to be measured by a pre and post attitude survey.

D. The pre and post scores on the Basecheck tests were used to determine gains made by the preschool children.

E. Breakfast program participation rate was determined from records of daily meals served.

F. Teacher-pupil service program performance will be determined from the monthly output measures for both the attendance aide and the social worker and the school attendance records.

G. Cost-effectiveness was determined on a per pupil expenditure basis for each grade.

## Methodology

Evaluation of the accomplishments for the 1971-72 school year took four approaches: (1) evaluation of the behavioral objectives, (2) evaluation of supportive programs, (3) a review of test performance in 1971-72, and (4) a longitudinal view of test data for 1970-71 and 1971-72 based on effectiveness and acceptability. Included will be comparison of scores in reading against national norms and city-wide norms, and frequencies in gains and posttests scores for all grades.

## X. FINDINGS

### Evaluation of Behavioral Objectives

A. The pupils in grades two, three, five, and six will show at least a 0.5 gain in reading skills. Grade two had 43 per cent, grade three had 26 per cent, grade five had 39 per cent and grade six had 18 per cent achieve this objective. Grade two had the highest (0.4) mean gain. Overall the gains were unsatisfactory and the objective was not achieved. This is shown in Table 1. The majority of pupils scored under the 0.5 gain level.

B. Children in preschool will show an increase of forty-five per cent in motor and learning skills. The two units in preschool each scored over forty-five per cent gain. Unit one gained 60 per cent and unit two gained 54 per cent as measured by Basecheck. This way a very commendable performance.

C. The per cent of attendance will increase by at least one per cent over last years rate. The per cent of attendance increase from 87.9 in 1970-71 to 89.7 in 1971-72, this is a gain of 1.8 per cent, and the objective was achieved.

## TABLE 1

## READING GAINS
## METROPOLITAN ACHIEVEMENT TESTS (MAT)*

| | Below 0.5 | | 0.5 or Above | |
|---|---|---|---|---|
| Grade | No. | Per Cent | No. | Per Cent |
| 2 | 43 | 57 | 33 | 43 |
| 3 | 45 | 74 | 16 | 26 |
| 5 | 51 | 61 | 32 | 39 |
| 6 | 74 | 82 | 16 | 18 |
| | 213 | 69 | 97 | 31 |

*6 Month Period.

### Evaluation of Supportive Programs

The supportive programs each had a goal and or objective that was related to specific needs in the school. Each was evaluated in respect to its accomplishments in reaching this goal or objective.

A. Comprehensive Instructional Program (CIP)

CIP had as an objective to have each pupil in grades two three, gain one month in reading for each month in instruction. This would be a gain of 0.6 due to the six months pre-post test period. Only fifteen pupils in second grade and eleven pupils in third grade had gains of .6 or greater. The objective was not reached. This is shown in Table 1.

B. Career Opportunities Program (COP)

The objective was to have pupils taught by a COP team show greater gains than other similar pupils. Because the aides were not used in any particular class, it is not possible to measure obtainment in this program.

### C. Model Cities Educational Component

#### 1. Breakfast Program

The goal was to provide a free nutritional breakfast to all children who desired it. The program was started in March and an average of 250 pupils per day took part. The objective was to help reduce absenteeism and for the year attendance increase by 1.8 per cent over the previous year. It was felt that this program helped achieve this gain.

#### 2. Extended Day

The program had as a goal to provide enrichment activities and supervised day care to school-age children before and after regular school hours. Approximately 225 pupils per day took part in this program. The objective was to show a more positive attitude toward school. This could be evaluated because of testing difficulties.

#### 3. Preschool

The goal was to provide educationally directed day care for children or mothers who work and to prepare children for kindergarten. Forty children were enrolled in the preschool program at Dunbar. There was an increase of 60 per cent in unit one and 54 per cent in unit two as measured between pre and post scores on the Basecheck tests. The objective was attained.

#### 4. Teacher-Pupil Services

This program was designed to help the attendance rate through the use of attendance aides. There was an increase of 1.8 per cent over the previous year. Some of this gain was attributable to the program.

## Title I Program

### A. Lead Teacher

The Title I lead teacher concentrated on improving the teaching skills of all teachers in the area of reading. The aides were used in the classroom to help improve reading skills of the pupils. There were no outstanding gains made by any grade in Dunbar school, and it is not felt that the objective of this program was reached.

B. Youth-Tutoring-Youth (Y-T-Y)

No information was supplied on the gains made by the Y-T-Y participants, and it was not possible to evaluate this program.

C. Kindergarten Program

The kindergarten used aides to help the teachers better prepare the pupils for first grade. The Metropolitan Readiness Tests (MRT) was not given to the first grade pupils in the fall of 1972, therefore, it was not possible to evaluate the accomplishments of this program.

Evaluation of Tests Performance

With emphasis on the reading program at Dunbar, the Metropolitan Achievement Tests (MAT) can be used to guage progress in reading. No grade gained well in 1971-72. The second grade had the best gain with a .4 mean for the class. Overall, the largest number of pupils were in the zero or negative gain group as shown in Table 2. Posttest levels indicate that Dunbar is behind city-wide levels and compared to national norms, are from 0.8 behind in second grade to 3.0 behind in the sixth grade. Only eight per cent of the total school population was within two months or above grade level as compared to the national norm. This is shown in Table 3. These were very unsatisfactory levels of performance.

Evaluation of Longitudinal Data

This is an attempt to track student progress in the school over a two-year period. Table 4 shows grade level gain and rate of gain comparisons for 1970-71 and 1971-72. This table showed very little change in posttest level from the two years compared. The influence in posttest level for grades four, five and six show very little progress being made.

Further analysis of reading scores was made on the basis of predicted achievement for each grade level. A regression equation employing factors of attendance, mobility, socio-economic status, pupil-teacher ratio, percentage of pupils passing and pretest scores formulated predictions of posttest scores and resulting gains. A ratio of actual gain to predicted gain yielded a percentage described as a gain rate of effectiveness. Another ratio of the actual posttest score divided by the national norm for the respective grade level resulted in an index of acceptability. Table 5 shows the changes in the gain rate of effectiveness and index of acceptability.

## TABLE 2

## READING GAINS ON METROPOLITAN ACHIEVEMENT TESTS (MAT) BETWEEN PRETEST AND POSTTEST*

| | Negative to Zero | | .1 - .3 | | .4 - .6 | | .7 - .9 | | 1.0 or Above | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grade | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | Mean Gain |
| 2 | 18 | 24 | 19 | 25 | 24 | 32 | 8 | 11 | 7 | 9 | 0.4 |
| 3 | 20 | 33 | 23 | 38 | 9 | 15 | 6 | 10 | 3 | 5 | 0.2 |
| 5 | 39 | 47 | 10 | 12 | 13 | 16 | 11 | 13 | 10 | 12 | 0.3 |
| 6 | 63 | 20 | 7 | 8 | 7 | 8 | 3 | 3 | 10 | 11 | -0.1 |

*6 Month Period.

## TABLE 3

## ANALYSIS OF POSTTEST SCORES IN READING ON METROPOLITAN ACHIEVEMENT TESTS (MAT)

| | 24 Months or More Behind* | | 12-23 Months Behind* | | 3-11 Months Behind* | | Within 2 Months of Grade Level or Above* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grade | No. | Per Cent | No. | Per Cent | No. | Per Cent | No. | Per Cent | Posttest Level | City Level | National Level |
| 2 | - | - | 35 | 46 | 31 | 41 | 10 | 13 | 1.9 | 2.4 | 2.7 |
| 3 | 16 | 26 | 41 | 67 | 4 | 7 | 0 | 0 | 2.0 | 3.0 | 3.7 |
| 4 | 39 | 39 | 37 | 37 | 11 | 11 | 14 | 14 | 3.4 | - | 4.7 |
| 5 | 59 | 71 | 18 | 22 | 2 | 2 | 4 | 5 | 3.6 | 3.9 | 5.7 |
| 6 | 82 | 91 | 4 | 4 | 3 | 3 | 1 | 1 | 3.7 | 4.4 | 6.7 |
| | 196 | 48 | 135 | 33 | 51 | 12 | 29 | 7 | | | |

*National Norms.

The gain rate of effectiveness dropped from 89 to 49. Grades two, three, and four were above 100. This was an increase over the previous year, but the overall level of gain rate of effectiveness was not nearly what was to be desired.

The index of acceptability was up slightly from 56 to 59. Grades two, three, and four were above the predicted posttest level. All grades were behind city-wide levels and national norms. No grade was closer than 0.8 to the national levels. This was a very unsatisfactory level in acceptability.

## TABLE 4

### GRADE LEVEL, GAIN AND RATE OF GAIN
### 1970-71 AND 1971-72

| | Grade Level (Posttest) | | | | | |
|---|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 | 7 |
| 70-71 | 1.61 | 2.13 | 2.79 | 3.63 | 3.70 | 4.56 |
| 71-72 | 1.91 | 2.01 | 3.42 | 3.63 | 3.66 | -- |
| | Gain (Pre-Post) | | | | | |
| 70-71 | .18 | .27 | .36 | .36 | .03 | 1.04 |
| 71-72 | .41 | .23 | -- | .26 | -.10 | -- |
| | Rate of Gain | | | | | |
| 70-71 | .30 | .40 | .60 | .57 | .05 | 1.66 |
| 71-72 | .65 | .37 | -- | .43 | -.16 | -- |

## TABLE 5

## READING TEST DATA FOR 1971-72

|  | Actual |  | Acceptable | Predicted | Gain |  | Gain Rate of Effectiveness |  | Index of Acceptability |  |
|---|---|---|---|---|---|---|---|---|---|---|
| Grade | Pre | Post | Post | Post | Actual | Predicted | 1971-72 | 1970-71 | 1971-72 | 1970-71 |
| 2 | 1.5 | 1.9 | 2.7 | 1.8 | 0.4 | 0.3 | 133 | 75 | 70 | 59 |
| 3 | 1.6 | 2.0 | 3.7 | 1.9 | 0.4 | 0.3 | 133 | 60 | 54 | 59 |
| 4 | 2.1 | 3.0 | 4.7 | 2.8 | 0.9 | 0.7 | 129 | 50 | 64 | 55 |
| 5 | 3.2 | 3.4 | 5.7 | 3.6 | 0.2 | 0.4 | 50 | 50 | 60 | 56 |
| 6 | 3.6 | 3.2 | 6.7 | 3.8 | -0.4 | 0.2 | -200 | 0 | 48 | 54 |
| 7 | *** | *** | 7.7 | **** | **** | *** | **** | 300 | **** | 53 |
|  |  |  |  |  |  | AVERAGE | 49 | 89 | 59 | 56 |

## XII. COST ANALYSIS

The data presented in Table 5 show the relative cost for a one-grade-unit of gain based upon the rate of gain for 1971-72 and the amount spent. In order to compute these costs expenditures were taken from the General Funds Report, June 1972, and the Trust and Agency Report, June 1972. From these figures estimates were made of the per pupil cost from general funds and special projects (Compensatory funds). These data also show the cost in Compensatory funds for each unit of effectiveness, effectiveness as determined in the Effective? Acceptable? Study, 1972. The reader is cautioned that these data are not exact of refined. Broad estimates were made based upon information obtained from the school staff relative to the utilization of resources. Grade five had the highest cost ($2.64) with the lowest gain. High cost was evident in all grades and gains overall were very low. In relationship to effectiveness there are no indications that funds spent influenced the effectiveness of the reading program.

## XII. CONCLUSIONS

Based on the findings in this report, the following conclusions were drawn:

A. No grade achieved the reading gain objectives.

B. Overall gain was not satisfactory in any grade.

C. Low posttest levels are evident in all grades and are below both city-wide and national norms.

D. Poor utilization was made of the supportive programs.

E. The amount of funds spent did not relate significantly to the performance of the pupils.

## XIII. RECOMMENDATIONS

In order to improve the level of achievement, the following recommendations are made:

## TABLE 6

### COST ANALYSIS OF READING GAINS BY GRADES
### TOTAL AVERAGE DAILY ATTENDANCE
### K-7 ADA = 657

| | GRADES | | | | |
|---|---|---|---|---|---|
| | Second | Third | Fifth | Sixth | Total |
| ADA | 94 | 87 | 99 | 94 | |
| Per Pupil Cost | | | | | |
| A. General Funds | | | | | |
| 1. Regular | | | | | |
| a. Salary | $ 540.00 | $ 540.00 | $ 540.00 | $540.00 | $ 540.00 |
| b. Non-salary | 127.00 | 127.00 | 127.00 | 127.00 | 127.00 |
| 2. CIP | | | | | |
| a. Salary | | | | | |
| b. Non-salary | 1 | 1 | 1 | 1 | 1 |
| 3. Total General Funds | | | | | |
| a. Salary | $ 540.00 | $ 540.00 | $ 540.00 | $540.00 | $ 540.00 |
| b. Non-salary | 128.00 | 128.00 | 128.00 | 128.00 | 128.00 |
| c. Total General Funds | $ 668.00 | $ 668.00 | $ 668.00 | $668.00 | $ 668.00 |
| B. Special Projects | | | | | |
| 1. Model Cities | | | | | |
| a. Salary | $ 81.00 | $ 81.00 | $ 81.00 | $ 81.00 | $ 81.00 |
| b. Non-salary | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| c. Total | $ 88.00 | $ 88.00 | $ 88.00 | $ 88.00 | $ 88.00 |
| 2. ESAP | | | | | |
| a. Salary | $ 4.00 | $ 4.00 | $ 4.00 | $ 4.00 | $ 4.00 |
| b. Non-salary | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| c. Total | $ 5.00 | $ 5.00 | $ 5.00 | $ 5.00 | $ 5.00 |
| 3. Title I | | | | | |
| a. Salary | $ 48.00 | $ 48.00 | $ 31.00 | $ 31.00 | $ 39.00 |
| b. Non-salary | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| c. Total | $ 50.00 | $ 50.00 | $ 33.00 | $ 33.00 | $ 41.00 |
| 4. E.P.D.A. | | | | | |
| Salary | 1 | 1 | 1 | 1 | 1 |
| 5. C.O.P. | | | | | |
| Salary | 3 | 3 | 6 | 6 | 5 |
| 6. Total Compensatory Funds | | | | | |
| a. Salary | $ 137.00 | $ 137.00 | $ 122.00 | $122.00 | $ 130.00 |
| b. Non-salary | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| c. Total Compensatory Funds | $ 147.00 | $ 147.00 | $ 132.00 | $132.00 | $ 140.00 |
| C. Total Per Pupil Cost | | | | | |
| a. General Funds | $ 668.00 | $ 668.00 | $ 668.00 | $668.00 | $ 668.00 |
| b. Compensatory Funds | 147.00 | 147.00 | 132.00 | 132.00 | 140.00 |
| c. Total Per Pupil Cost | $ 815.00 | $ 815.00 | $ 801.00 | $801.00 | $ 808.00 |
| D. Rate of Reading Gain (Per Cent) | 65 | 37 | 43 | -16 | 32 |
| E. Projected Cost For One-Grade-Unit of Gain | | | | | |
| A. General Funds | $1,028.00 | $1,805.00 | $1,553.00 | | $1,455.00 |
| B. Special Projects | 226.00 | 397.00 | 307.00 | | 308.00 |
| C. Total | $1,254.00 | $2,202.00 | $1,860.00 | | $1,763.00 |
| F. Gain Rate of Effectiveness | 133 | 133 | 50 | -200 | 49 |
| G. Expenditure (Per ADA) of Compensatory Funds For Each Unit of Effectiveness | 1.11 | 1.11 | 2.64 | | 1.65 |

A. More concentration is necessary in the reading program to raise levels of effectiveness and acceptability.

B. Concentration should be made to raise the reading level of the upper grade pupils in preparation for middle school.

C. Better utilization should be made of the supportive programs to enhance the regular instructional programs at Dunbar.

D. More detailed and specific behavioral objectives should be formulated for identification of problem areas.